MTWS

Volume II:
Model Display Station (MDS)
Operating Procedures

Version 3.0
February 2003

THE MTWS Documentation Suite

The MTWS Documentation Suite – Volume II
Model Display Station (MDS) Operating Procedures

Chapter 1 – Overview

Introduction

This volume provides the MAGTF Tactical Warfare Simulation (MTWS) Terminal Operator with sufficient information to be able to execute all necessary functions to control MTWS entities during an exercise. Specifically, this document explains the use of the Model Display Station (MDS), including descriptions of each of the display options, simulation commands and the use of the C4I interface.

Role of the MTWS Terminal Operator

The primary purpose of MAGTF Tactical Warfare Simulation (MTWS) is to provide a realistic environment for Command Post Exercises (CPXs) where unit commanders and their staffs can practice procedures and decision-making processes. The commander and his staff will use normal command and control networks to communicate with various response cells that use Controllers, MTWS Terminal Operators, and MDS's to represent subordinate, adjacent, and higher headquarters units. A similar team, response cell, represents the Opposing Forces (OPFOR).

Each Controller represents one or more subordinate or adjacent unit commanders and provides the link between the training audience, commander and his staff, and their units that are depicted in MTWS. The Terminal Operator provides the vital link between the Controller and the simulated units by entering the commanders game plan and on going exercise decisions into the MDS, while helping the Controller interpret Spot and Solicited Reports so he can role play the subordinate and adjacent commanders. As a team, the Controller, and Terminal Operator use the MDS to "paint" a realistic picture of the battlefield. In some situations, such as the Higher Headquarters or the OPFOR response cell, the Controller and Terminal Operator may be the same person.

Description of the Model Display Station (MDS)

The MDS is a PC operating under Microsoft® Windows N/T or Windows 2000, using Microsoft® Office 97 or Office 2000 software. Maui is an advanced user interface (software program) developed to run on Windows Operating Systems and interface the MDS with the Model Station Control (MSC) and Model Application Network (MAN). The MDS has been referred to as an MTWS Display Station, a Terminal Display, an MTWS Workstation, and a Maui Display or Workstation. The normal desktop configuration uses a 21" monitor, keyboard and two-button mouse. The MDS may also be a laptop computer. In either case, most MDS's will include a line printer or a connection to a network printer to print out various reports.

Computer and Windows Knowledge

This manual has been developed for prospective Terminal Operators who have a strong working knowledge of the Windows environment and software presently used on PCs or laptops. Specifically, this knowledge base should include the startup, login, and initial

screen display/task bar setup of the PC/laptop with a Microsoft® Windows N/T or Windows 2000 O/S and the use of the Microsoft® Office 97 or Office 2000 software.

Dithered Commands

Some functionality in the MTWS display terminal software has not been completed. Consequently, the menu selections for this functionality have been dithered out and are inoperative.

Symbology

The symbology that is displayed on the Maui map window of the MDS is Mil Std 2525B. Complete information on this symbology can be found in MIL-STD-2525B dtd 30 January 1999 that is located at "www-symbology.itsi.disa.mil/symbol/mil-std.htm".

Maui Help

This manual will make frequent reference to the Maui Help that is available on the MDS.

Access to MDS

The descriptions and instructions in this manual assume that the user has access to a MDS that can go "On Line" so that the various features, commands, and report requests are dynamic.

Chapter 2 – Display Orientation

Section I- Start Up

Maui Icon

To start Maui, double–click on the Maui icon located on the MDS desktop. The shortcut icon is represented as the globe of the earth, labeled as Maui.

Splash Screen

The Maui splash screen as shown in this example is displayed during the loading of the program.

Initial Windows Displayed by Maui (left to right, top to bottom)

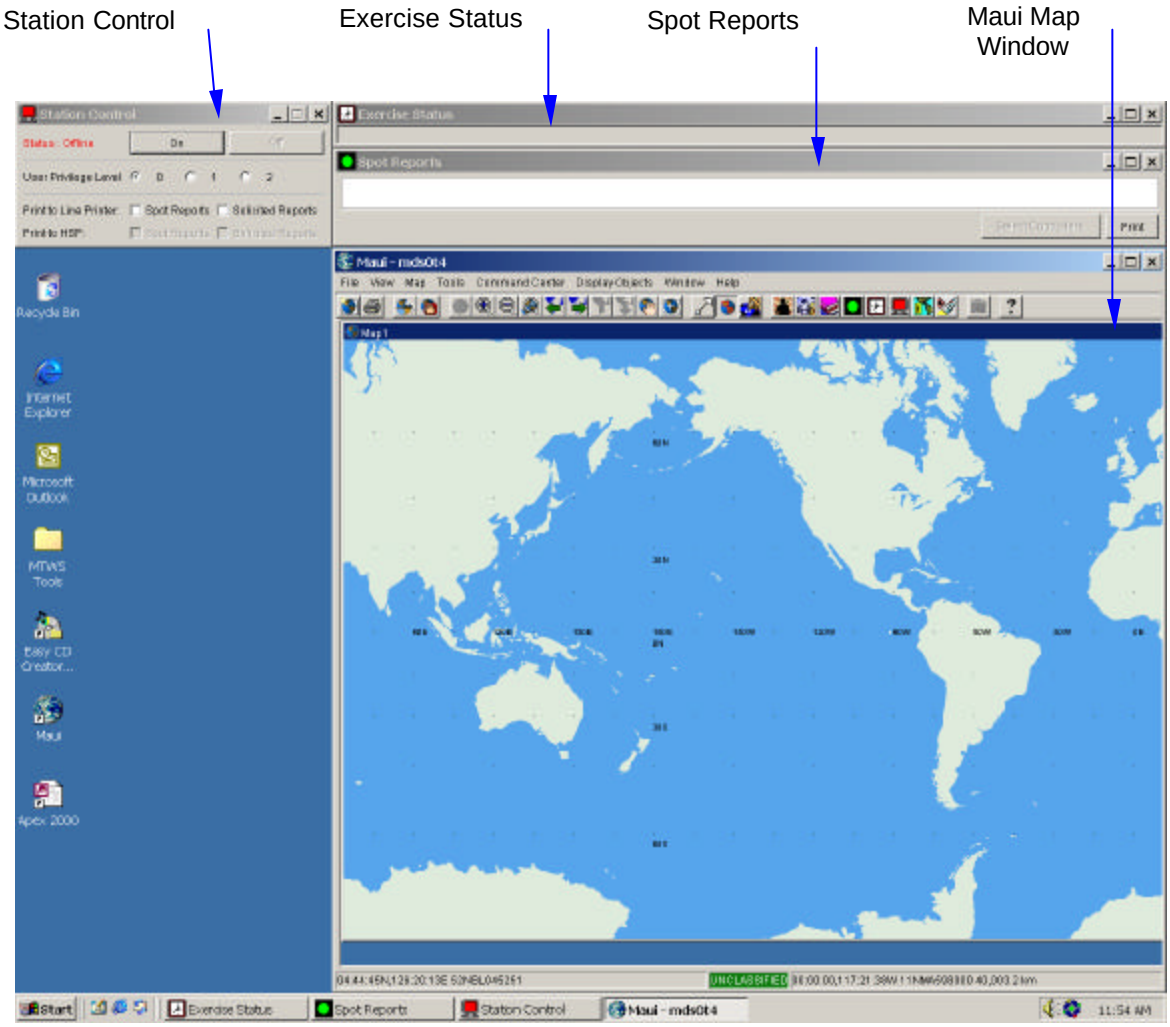
The starting screen will display the Station Control window, the Exercise Status window, the Spot Reports window and the Maui Map Window.

Station Control

The Station Control window displays the current online status, User Privilege Level controls, and specifies the printer or printers. The default User Privilege Level is **0**. Passwords are required to change the setting to level **1** or **2**.

Exercise Status

The Exercise Status window contains the exercise name, the system state (Run or Admin), system mode (Normal or Suspend), and the time (both exercise local and Zulu time).



Spot Reports

Spot Reports are generated by the system to report the activities of Simulated and Real units that are in the exercise database. Spot Reports are filtered by Controller ID(s). A Controller ID/name is assigned to each unit as it is defined.

Maui Map Window

The Maui Map Window displays the Title Bar, Menu Bar and Tool Bar above the map viewing area and the Status Bar below the map. The map viewing area will initially display the current WVS (World Vector Shoreline) map. (See Typical Display)

Additional Windows Opened by the Terminal Operator Command Entry

The Command Entry (CE) window opens, along with the Command Entry (CE) Tree window, when **Command Entry** is selected from the **Command Center** menu in the Menu Bar of the Maui Map Window. The Command Entry window displays **Response**, **Previous Commands**, and **Current Command**.

Command Entry Tree

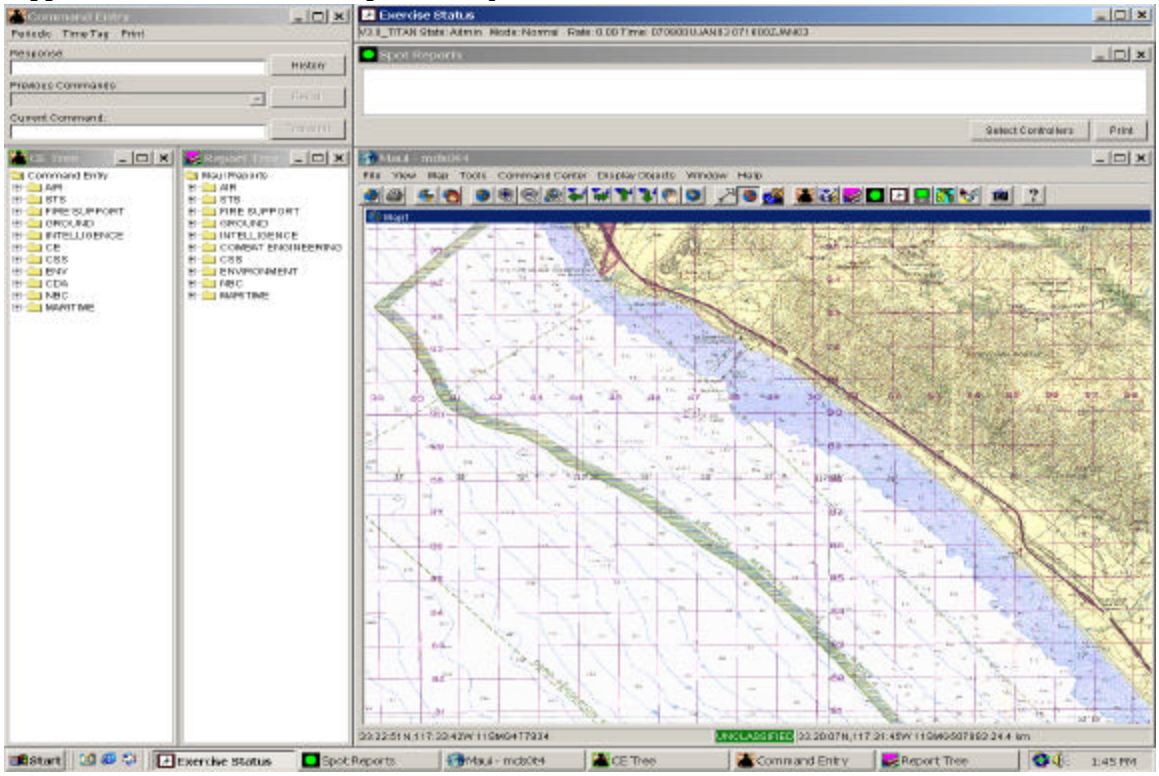
The CE Tree provides a list of command types and their associated commands for sending Commands to MTWS.

Report Tree

Selecting the **Report Tools** in the **Command Center** menu displays the **Report Tree** and the **Command Entry** window. The Report Tree is made up of report categories and their associated Solicited Reports.

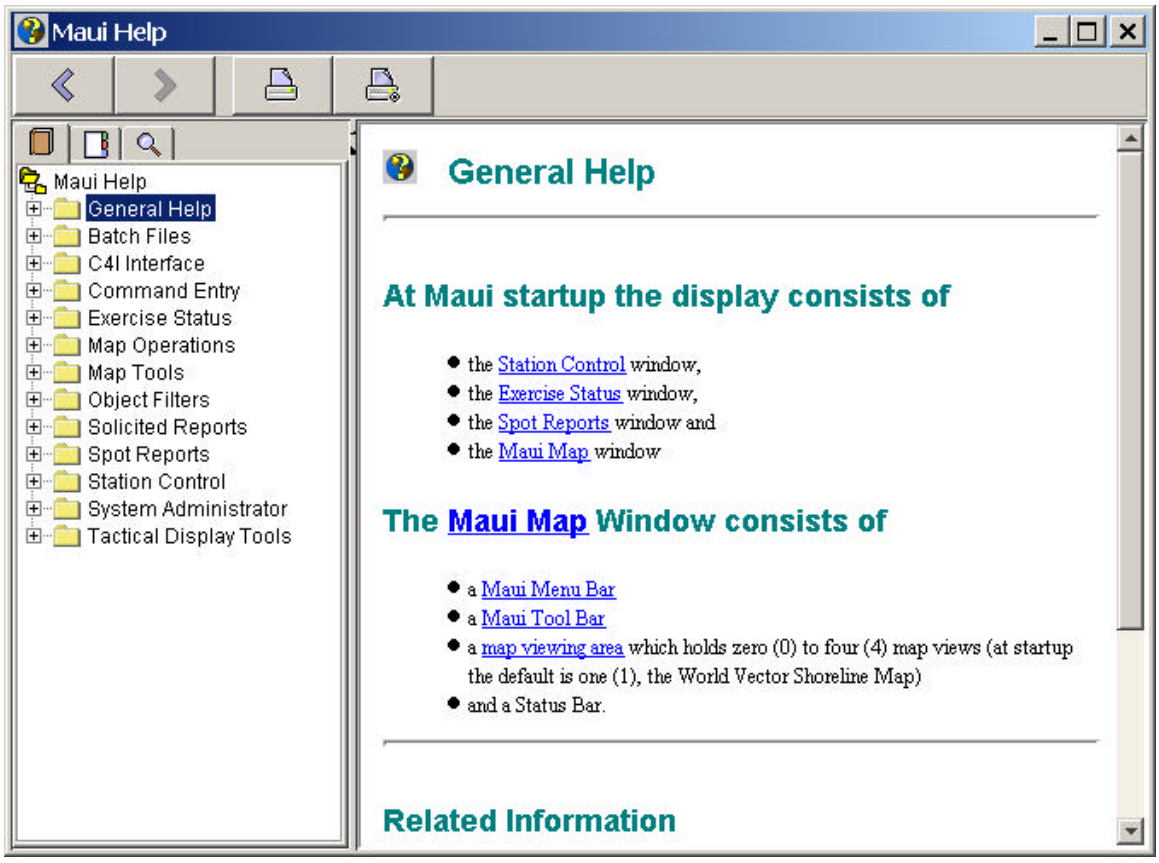
Typical Display

Once Maui has been started and the Terminal Operator has opened the Command Entry and Report Tree windows, the windows can be re-sized and displayed as necessary to support individual Terminal Operator requirements.



Maui Help Window

To start the Maui Help window, click on **Help** on the Menu Bar and select **Contents and Index**, or the **?** (Help) button on the Tool Bar. The general information under General Help provides instructions on the Help program.



Section II – Exiting Maui

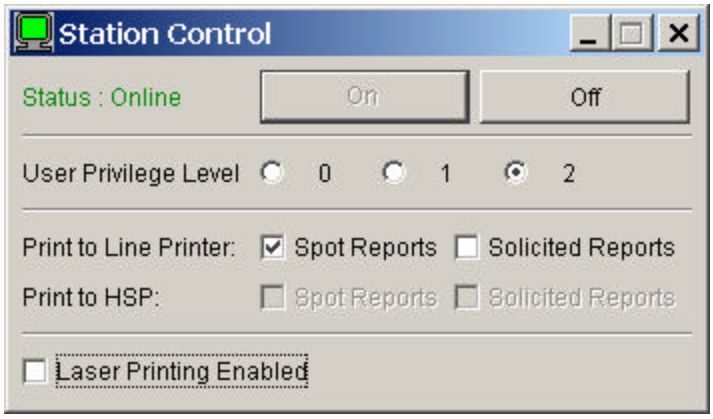
File menu

Open File menu on the map display and select Exit. This displays the Confirm Maui Exit window. Click OK.

Chapter 3 – MDS Windows

Section I Station Control

The Station Control Window is opened when Maui is started. Station Control is also one of the selections on the Maui Menu Bar Command Center menu. The Station Control section of Maui Help provides detailed information on Station Control.



Section II Exercise Status

The Exercise Status Window is opened when Maui is started. Exercise Status is also one of the selections on the Maui Menu Bar Command Center menu.

Section III Spot Reports

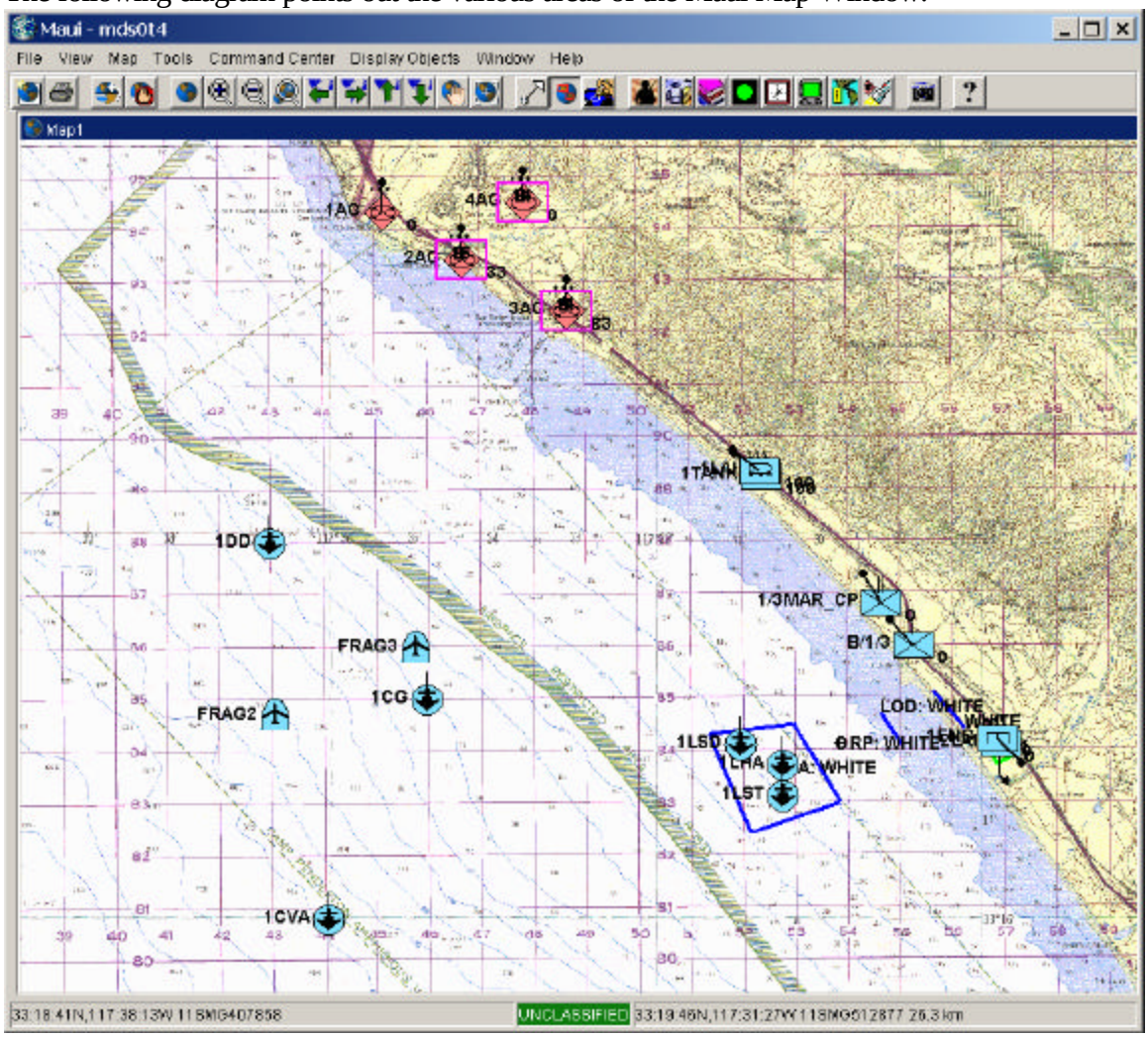
The Spot Reports window is opened when Maui is started. The Spot Reports window is also one of the selections on the Maui Menu Bar Command Center menu.

The Spot Reports section of Maui Help provides detailed information on Spot Reports.

Section IV – Maui Map window

Description

The following diagram points out the various areas of the Maui Map Window.



Title Bar

The Title Bar is the top bar of the Maui Map window and displays the software and MDS name in the left side. The icon in the corner is a duplicate of the related tool button.

Maui Menu Bar

The Menu Bar is displayed below the Title Bar and above the Tool Bar. Clicking on one of the subjects displayed in the Menu Bar opens a pull-down menu that provides access to commands, tools, and functions that allows the Terminal Operator to set up and filter the MDS. Command subjects listed on the Menu Bar include File, View, Map, Tools, Command Center, Display Objects, Window, and Help. Several of these commands, tools, and functions are linked to buttons located on the Tool Bar.

Maui Tool Bar

The Tool Bar contains buttons (Shortcuts) for executing commands, tools, and functions frequently used by Terminal Operators. Instead of opening the menu, selected commands may be activated by a corresponding button.

Map viewing area

The map viewing area holds zero (0) to (4) map windows. Each map window contains the maps that are currently active (loaded). If no maps are active, a World Vector Shoreline (WVS) map will be displayed.

Status Bar

The Status Bar displays the following information from left to right: the cursor location when placed on the map viewing area, the exercise level of classification, and the center point/width of the current map.

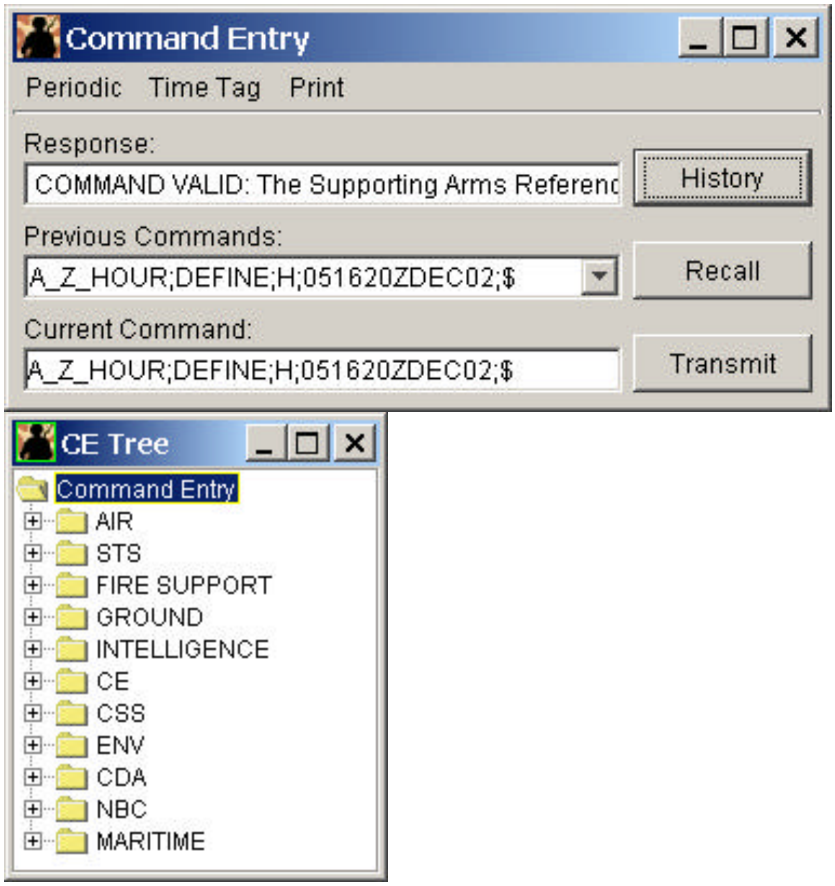
Maui Help

The General Help section provides more detailed information on the Maui Menu Bar and Maui Tool Bar.

More detailed information on Map Operations and Map Tools are also available in Maui Help.

Section V- Command Entry

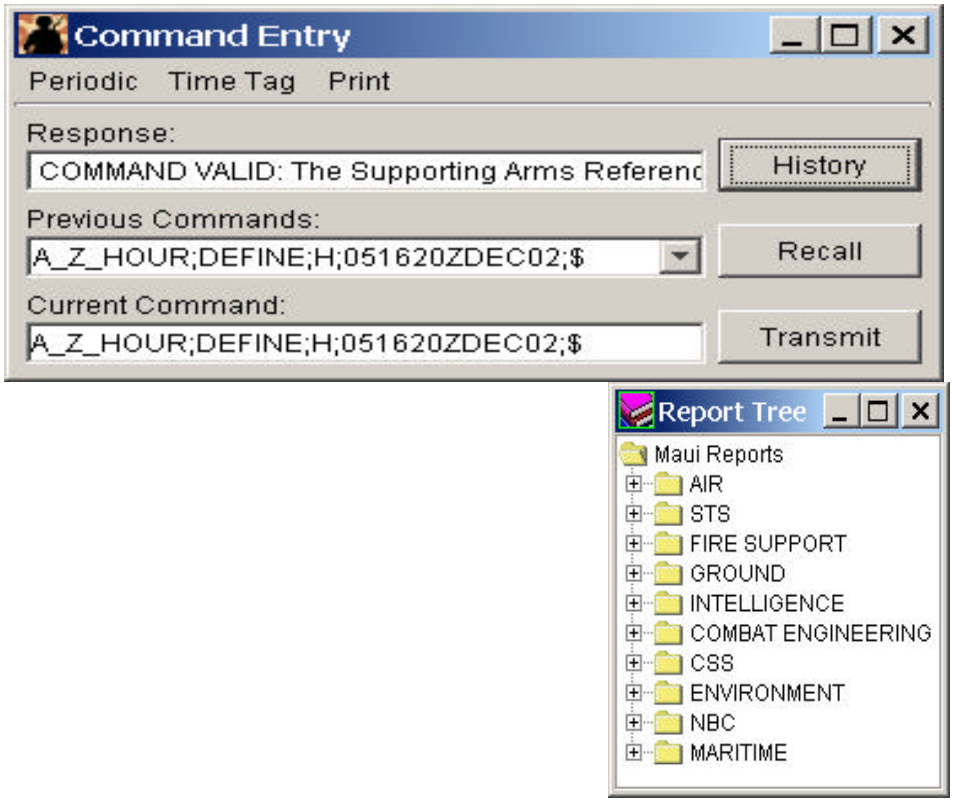
The Command Entry (CE) window provides access to all the MDS command entry forms. Clicking on Command Entry from the Maui Menu Bar Command Center menu will open both the Command Entry and CE Tree windows.



The Command Entry section of Maui Help provides detailed information on Command Entry. Additional information is available by clicking the **?** button for various parameters within each command window.

Section VI Solicited Reports

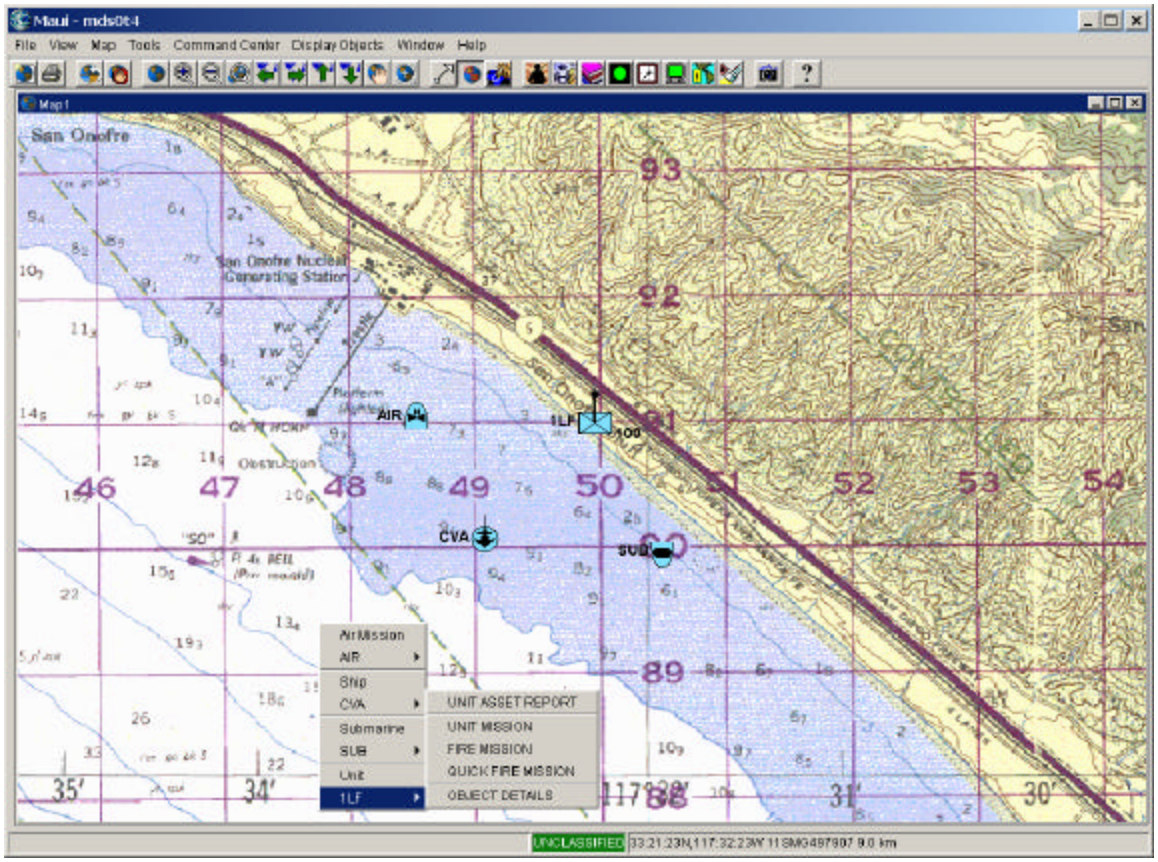
The Report Tools window provides access to all MDS Solicited Reports. Clicking on Report Tools from the Maui Menu Bar Command Center menu will open both the Command Entry and the Report Tree.



The Solicited Reports section of Maui Help provides detailed information on Solicited Reports. Additional information is available by clicking the **?** button for various parameters within each command window.

Section VII Right Click Feature

The right click feature provides access to a selection of Command Entry and Solicited Reports.



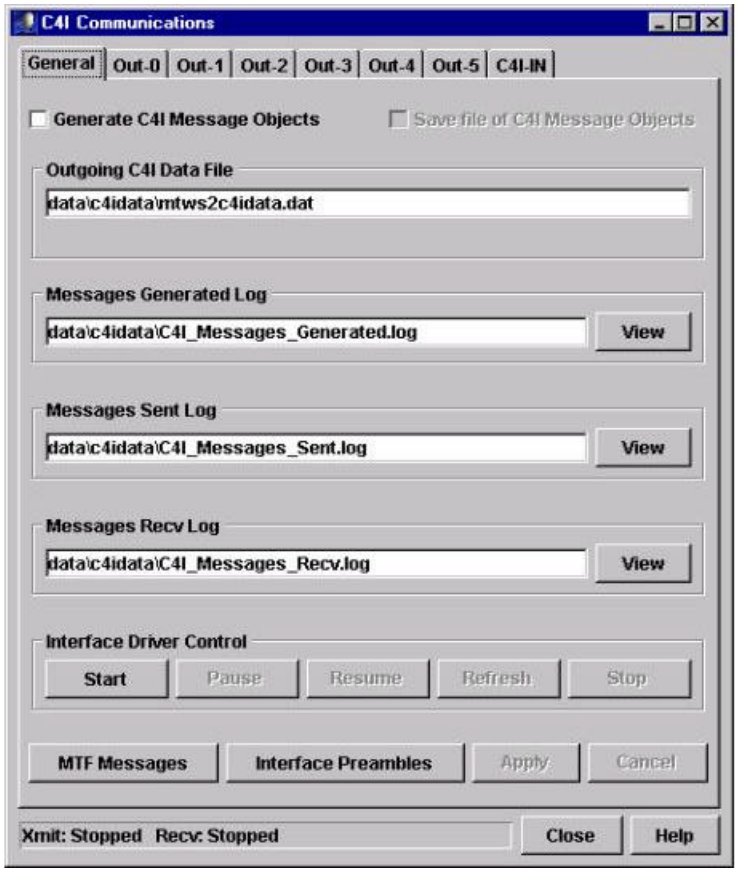
Individual icon selection: Place the cursor on the specific icon and right click the mouse.

Multiple icon selection: Place the cursor in the area of the desired icons. Press and hold down the right click button on the mouse. Move the cursor and an expanding box will appear on the screen. When the box has encompassed the desired icons, release the right click button.

In the above example each icon/unit (AIR, CVA, SUB & 1LF) has a selection of Command Entry or Solicited Report items that serve as shortcuts. The Solicited Report for 1LF is the "UNIT ASSET REPORT". The Command Entries for 1LF are "UNIT MISSION", "FIRE MISSION" and "QUICK FIRE MISSION". "OBJECT DETAILS" provides the GENERAL, DETAIL and SYMBOL DATA information for 1LF.

Section VIII C4I Interface

The C4I Interface provides a communications link between an MDS and the Global Command and Control System-Maritime (GCCS-M). GCCS-M includes the USMC C4I System ((IOS (Intelligence Operations Server)) and its component workstations. Clicking on the C4I Interface selection on the Maui Menu Bar Command Center menu will open the C4I Communications window.



Detailed C4I Interface information can be found in the C4I Interface section of Maui Help.

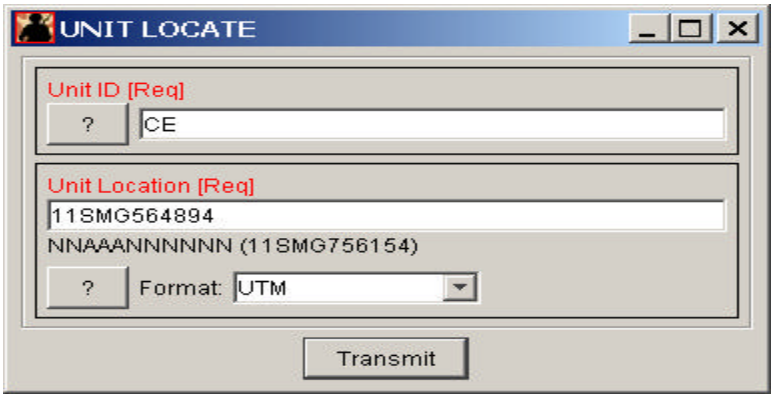
Chapter 4 Command Entry Error Messages

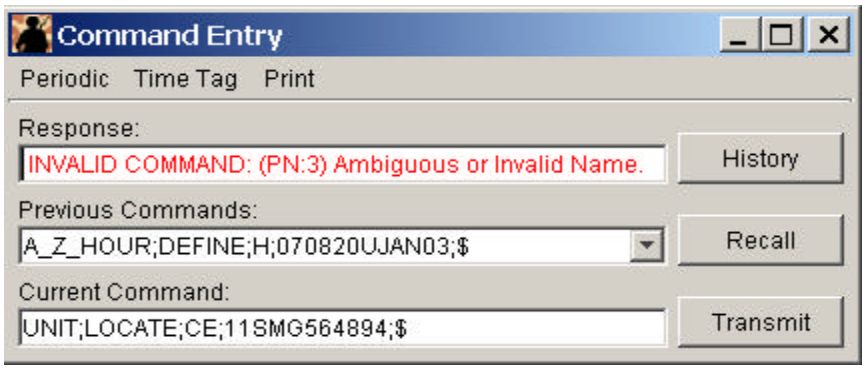
Section V (Command Entry) of Chapter 3 describes Command Entry and the CE Tree while Section VI (Solicited Reports) describes the Report Tree. Both of these sections refer to specific topics in Maui Help. When Terminal Operators complete and transmit the various commands and report requests, they occasionally receive an "Invalid Command" message in the Response Line of the Command Entry window instead of the normal "Command Valid" response. This "Invalid Command" message will include an error location (PN##) and a brief description of the error.

This chapter will describe some of the common "Invalid Command" messages. The Command Transit button of the Command Entry section of Maui Help contains one example of an "Invalid Command", where the name for a Flight Profile was duplicated in the second command. The PN##'s refer to entries in the commands with PN:3 being the first entry. PN:1 and PN:2 refer to the name of the command such as FLIGHT_PROFILE;DEFINE.

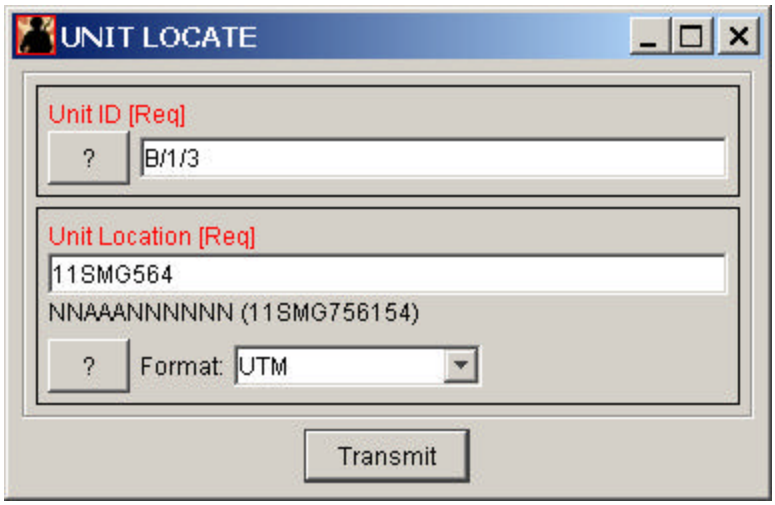
Section I Common Errors

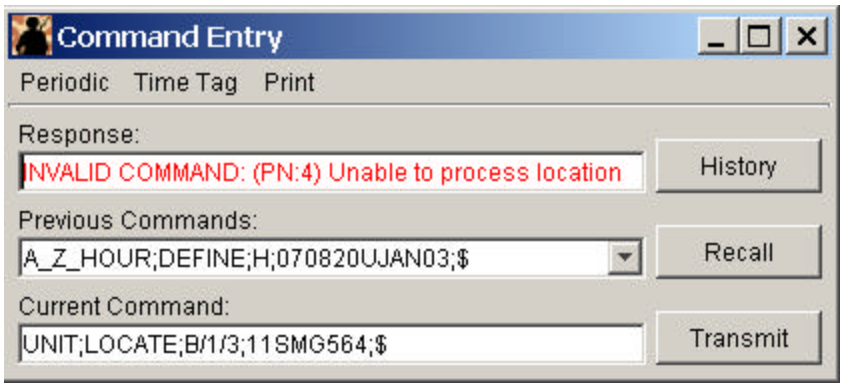
A. **INVALID COMMAND: (PN:3) Ambiguous or Invalid Name.** Invalid command parameters are identified in the command response window. The first command parameter in a command is (PN:3). In this case, the Unit ID "CE" does not exist in the database.



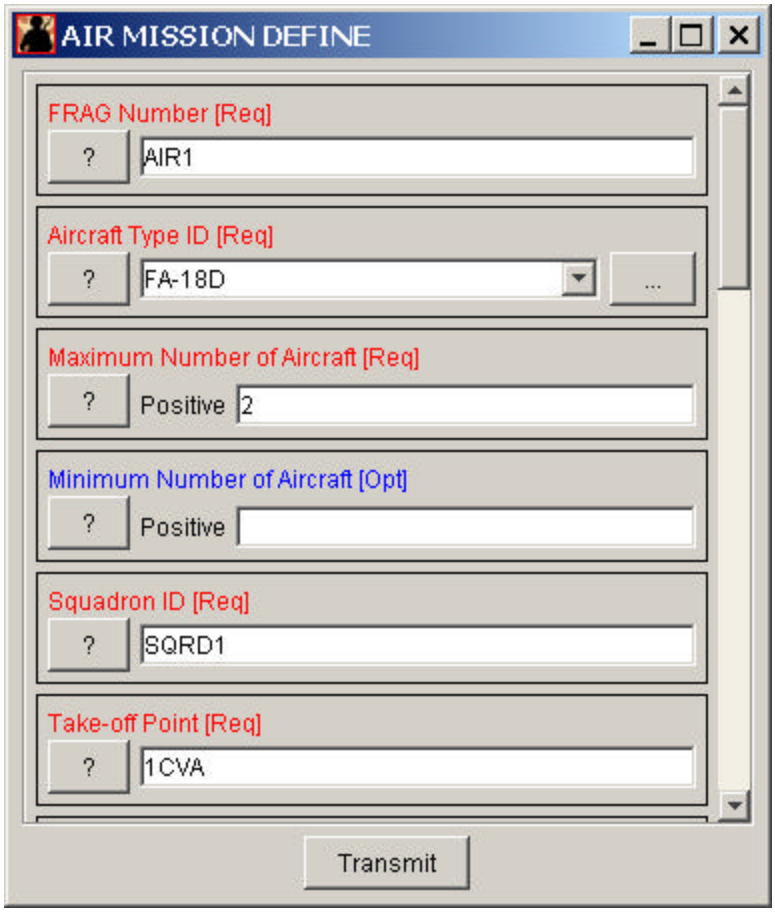


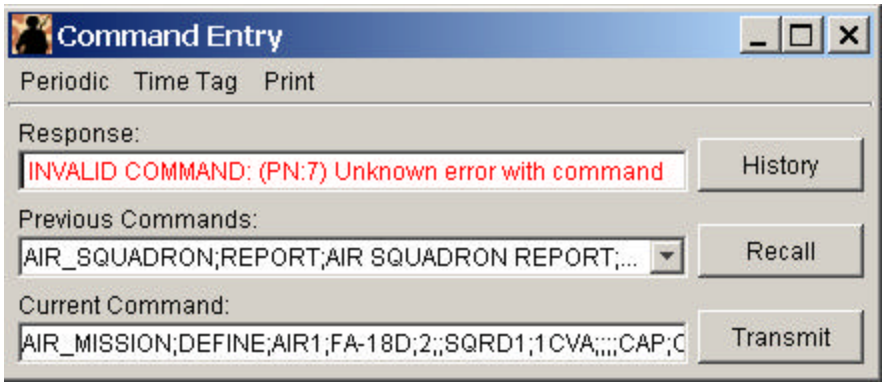
B. **INVALID COMMAND: (PN:4) Unable to process location**. MTWS identifies the first invalid parameter in a command. When that parameter has been corrected and there are more invalid parameters, MTWS identifies the next one. When a parameter other than the name of a unit or air mission is identified as invalid (i.e. *invalid UTM*), MTWS identifies the number of the parameter, but may not identify the specific problem.



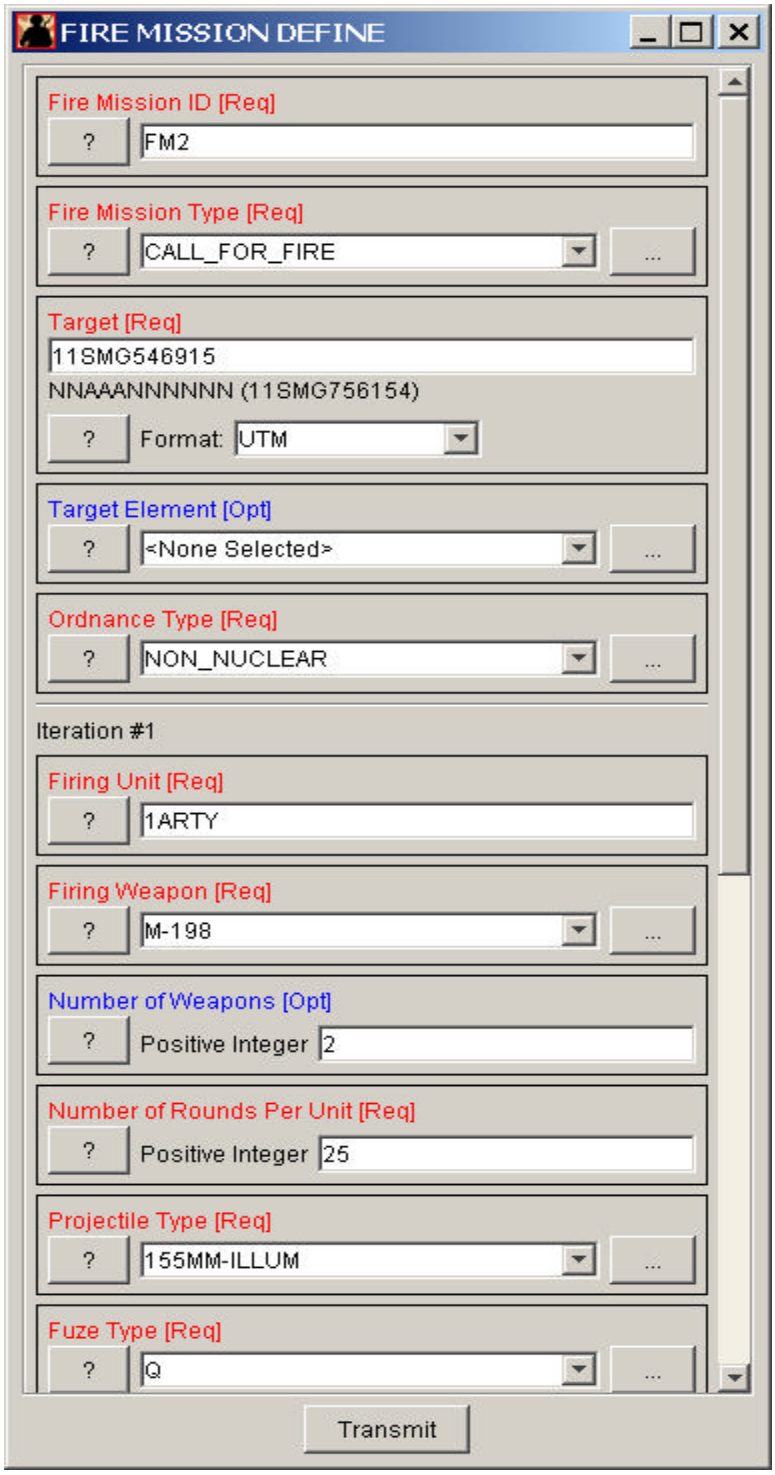


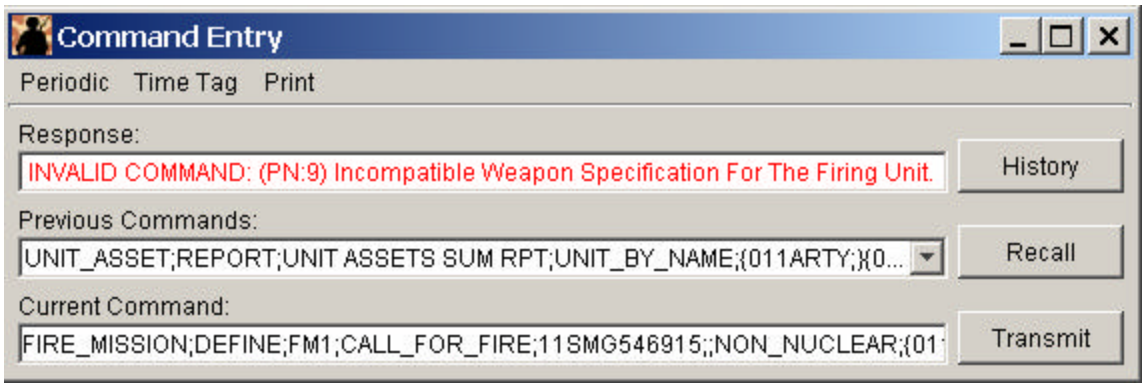
B. **INVALID COMMAND: (PN:7) Unknown error with command.**
While defining an air mission, the command is NOT unknown error with command. The actual error is with the name used for the squadron ID.



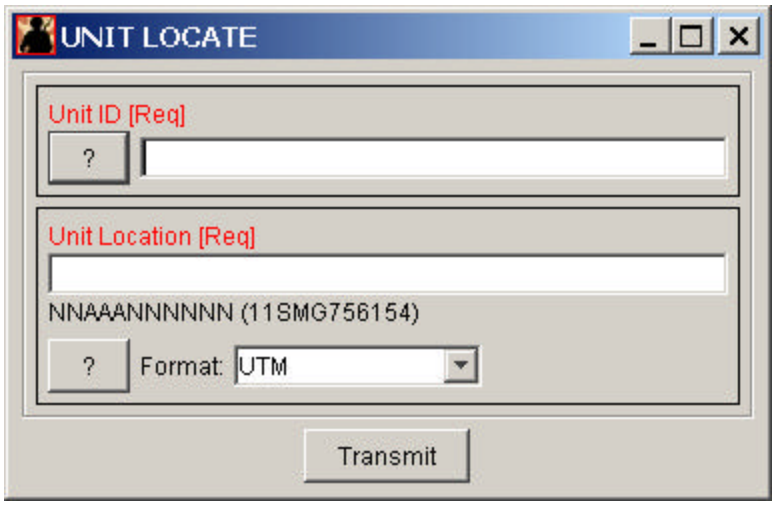


D. **INVALID COMMAND: (PN:9) Incompatible Weapon Specification For The Firing Unit.** The error is actually with the incorrect Fuze Type for the Projectile Type that has been selected.

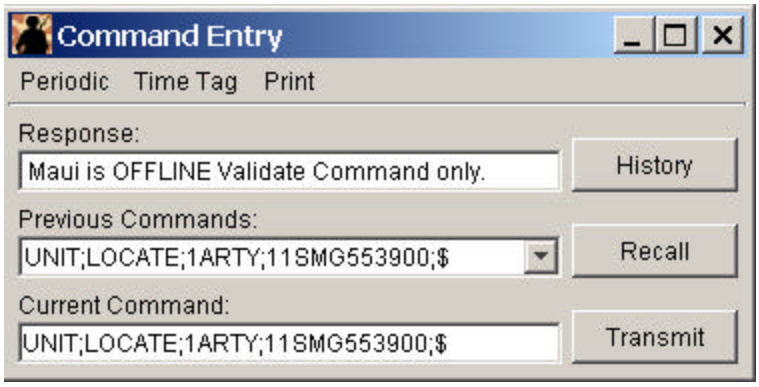




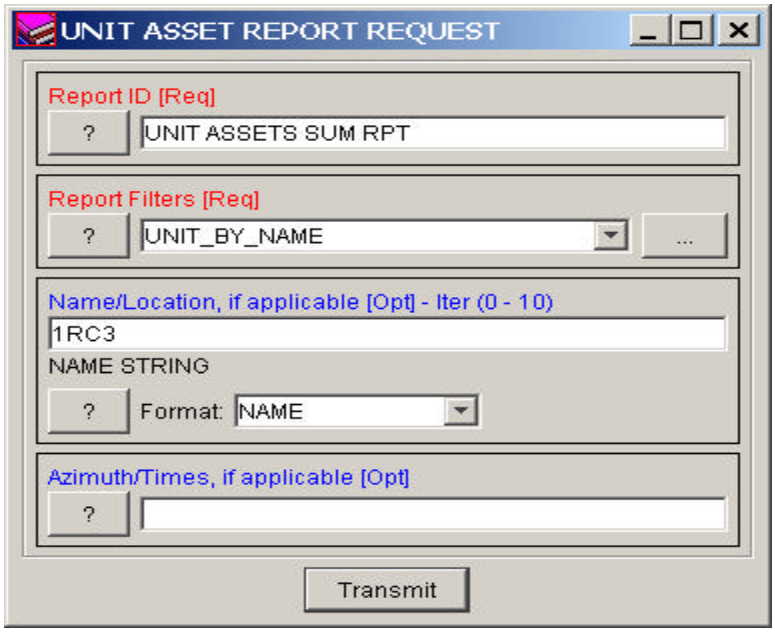
E. **Validation Error:** If a required parameter is missing, an error message will identify what required parameters have been left blank.

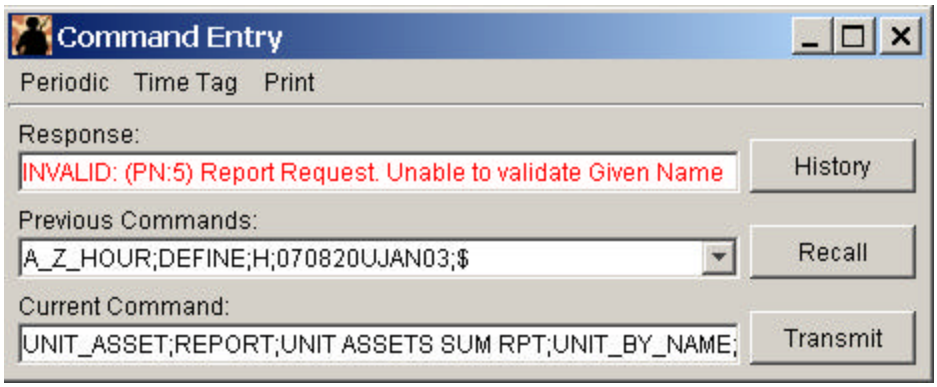


F. **Maui is OFFLINE Validate Command only.** If the Maui system is OFFLINE, the Terminal Operator should place the system ONLINE.



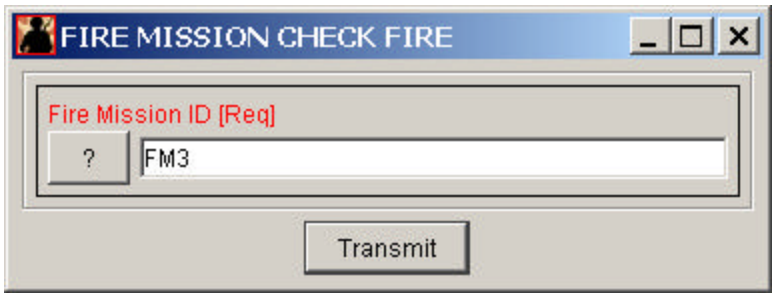
G. **Invalid: (PN:5)** Report Request: Unable to validate Given Name. The Name/Location "1RC3" does not exist in the database.

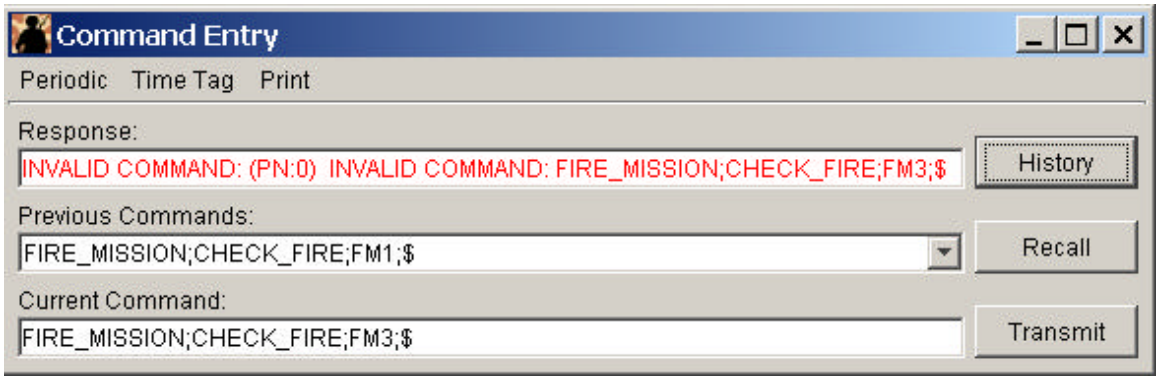




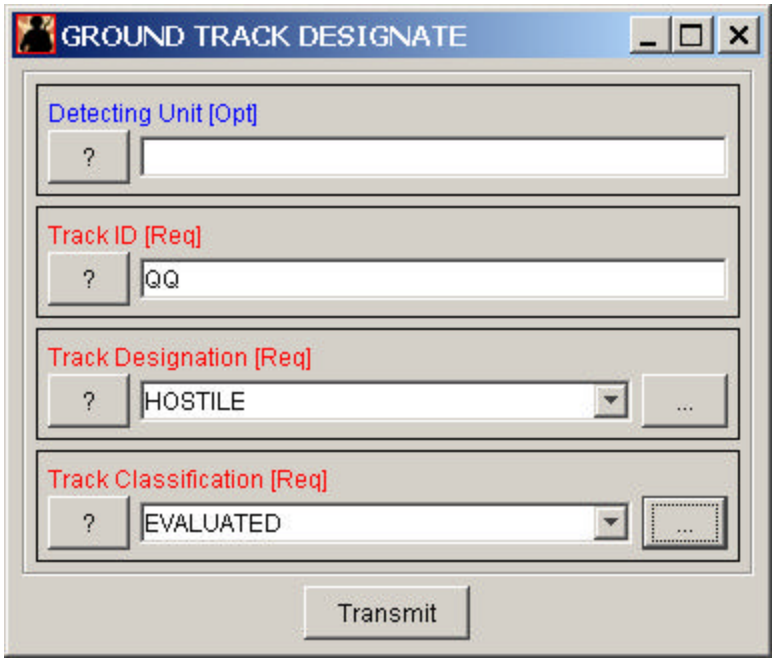
Section II Infrequent Errors

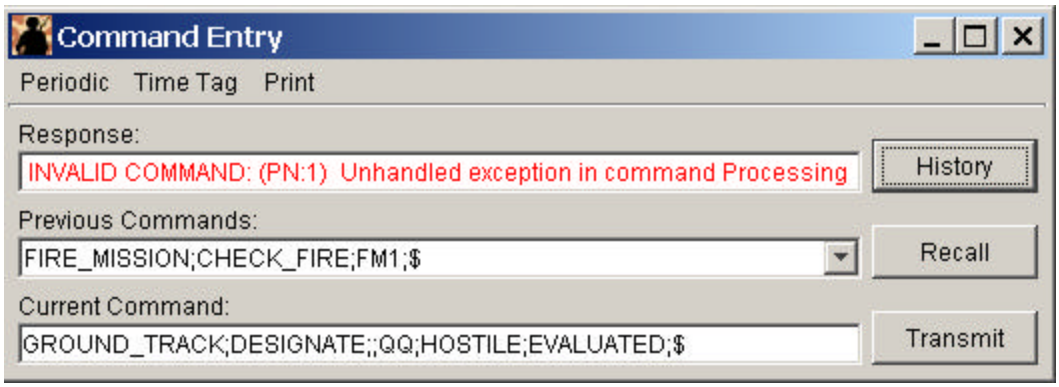
A. **INVALID COMMAND: (PN:0) INVALID COMMAND: FIRE_MISSION;CHECK_FIRE;FM3;$.** Means the command is invalid for reasons other than syntax errors.



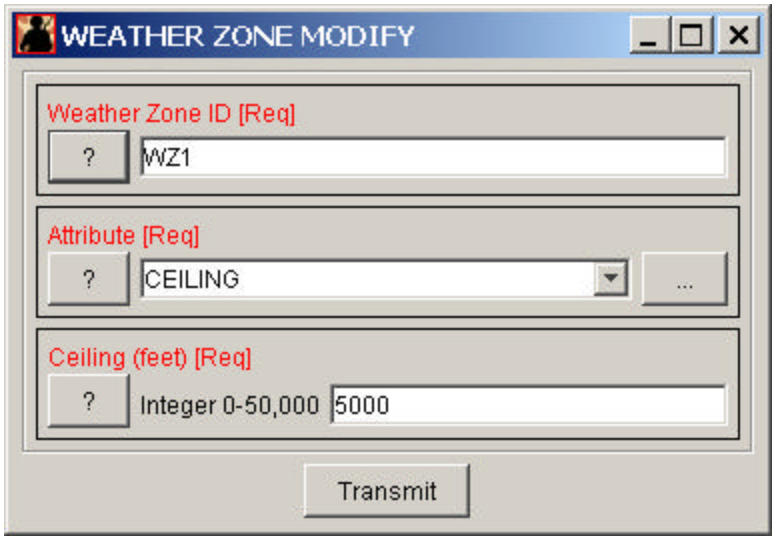


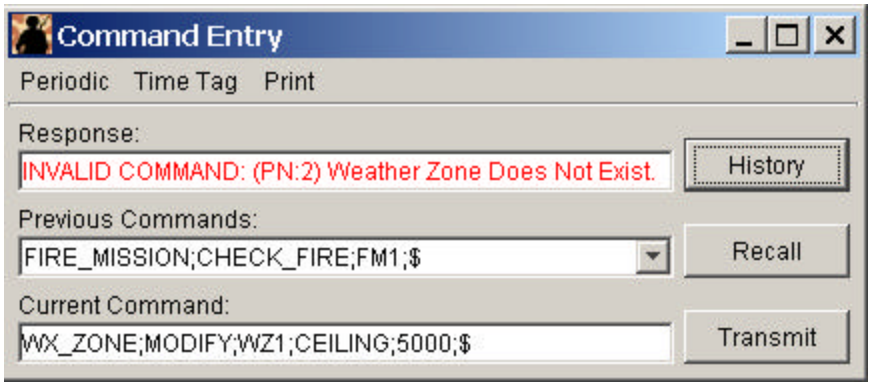
B**. INVALID COMMAND: (PN:1)** Unhandled exception in command Processing. Means the command has a syntax error.



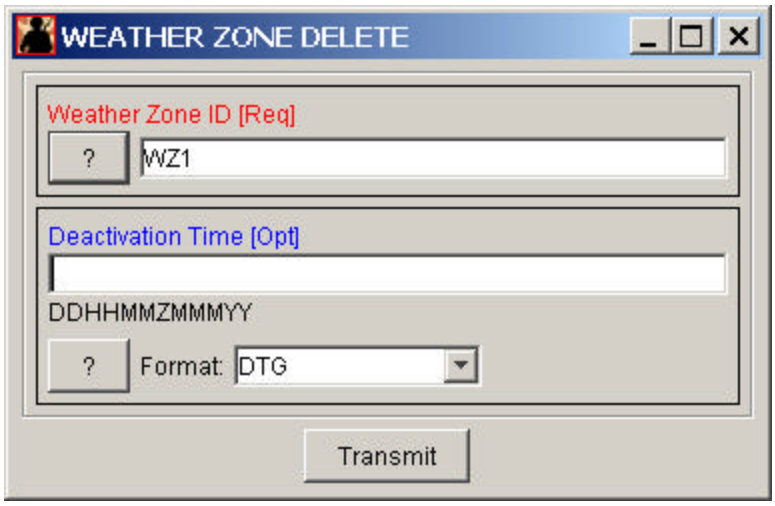


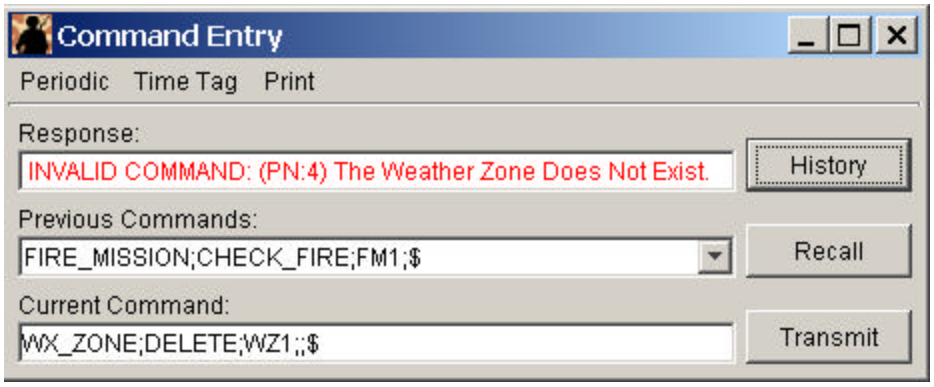
C. **INVALID COMMAND: (PN:2) Weather Zone Does Not Exist.** Should read (PN:3) because the error exists in the data field window.





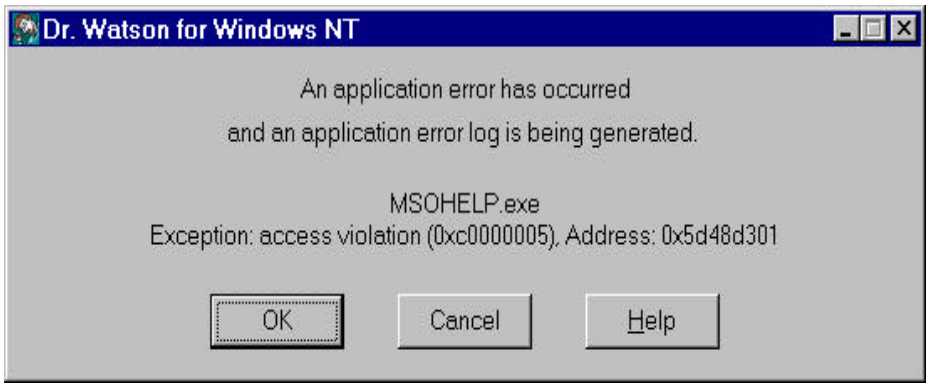
D. **INVALID COMMAND: (PN:4) The Weather Zone Does Not Exist.** Should read (PN:3) because the error exists in the data field window.





E. **Error connecting to the MSC.** The workstation will not work correctly: it is not connected to the MSC.

F. **Dr. Watson for Windows NT:** If the Terminal Operator receives a message from Dr. Watson, this indicates that the Maui has a serious problem. The Terminal Operator should notify the system administrator immediately.



Appendix A - Command Definitions

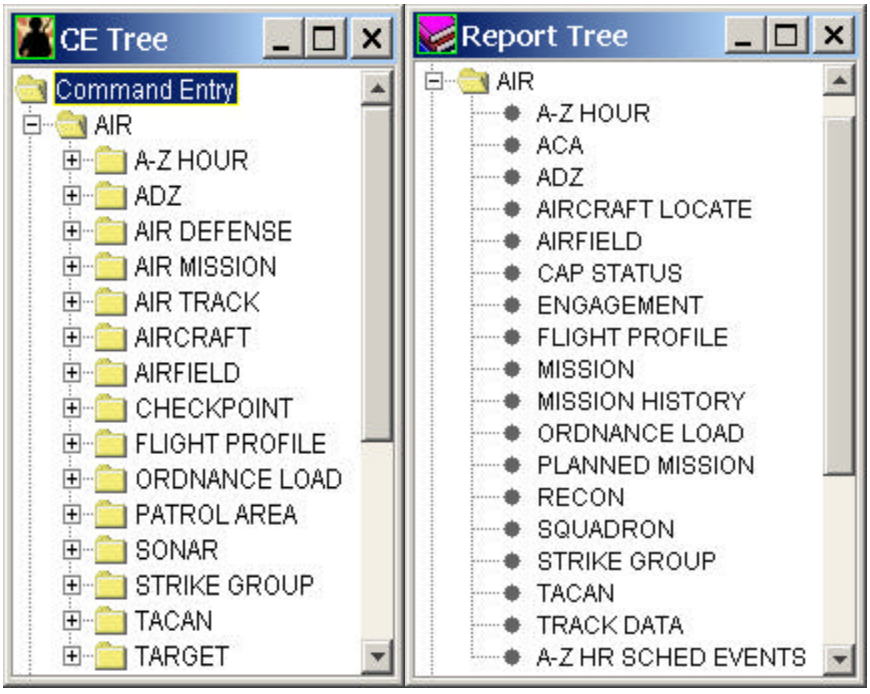
The Command Entry and CE Tree that were illustrated and explained in Section V of Chapter 3 provide user access to all the commands required to conduct military operations in a simulation exercise supported with the MTWS system. As shown in the CE Tree on page 9, the commands are divided into eleven functional areas.

This Appendix will provide a brief description of each functional area and its associated commands. The sequence of using these commands to build an exercise database or direct units to move, engage, fly, etc. is important.

For example, an air squadron must be defined, aircraft must be added to the squadron, a supply unit to provide fuel and ordnance must be defined, ordnance loads must be defined, and an airfield must be defined and linked to the squadron and supply units before air missions can be defined and launched.

Section I - AIR

The AIR functional area contains all the commands related to air support including offensive air support, assault support, anti-air warfare, electronic warfare, reconnaissance, and amphibious air operations. Corresponding AIR reports are located on the Report Tree.



A-Z HOUR

DEFINE: Defines a reference time for simulation operations. Takeoff times and other scheduled events such as TOT can use A-Z Hour as a reference point.

ADZ (AIR DEFENSE ZONE)

DEFINE: Defines an air defense zone by first identifying a center point for the ADZ and then providing radii for the (MIZ), (COZ), and the (AIZ). The user also has the option of defining a center of azimuth and a sector width (in degrees). No more than four ADZs can be defined at any one time.

DELETE: Deletes a defined ADZ.

AIR DEFENSE

ASSIGN: Initiates an air defense engagement by a specific air defense unit against a specified air track.

RELEASE: Immediately terminates the current assignment of a specified air defense unit to a specific track.

SET TACTICS: Sets the air defense tactics (i.e., firing conditions) of an air defense unit or ship with SA missiles/AA artillery. The FREE status means that the system will automatically assign an appropriate air defense unit to a HOSTILE air track. The TIGHT status means that air defense assignments must be initiated using the AIR_DEFENSE:ASSIGN command.

AIR MISSION

CANCEL: Cancels air missions prior to initial launch.

COMMIT: Directs an air mission that is airborne at an orbit point, or on strip alert, to a specified target. The user has the option of specifying the route to the target. May also include target element, ordnance, and TOT.

DEFINE: Designates the frag number, aircraft type and number, maximum and minimum number of aircraft, squadron, airfield, type of mission, timed events, IFF, route, ordnance, and transported unit as necessary to define the air mission. All air missions are tracked via the air mission ID/FRAG number. Only one aircraft type per mission is allowable. Any air mission type may be placed on strip alert and may have a mission profile defined later via the AIR MISSION:COMMIT command.

DIVERT: Causes change in the defined activity or location for a specified air mission.

HOLD: Causes an air mission currently on the ground to suspend further mission processing until resumed. If the HOLD command is used on an air mission while it is in the air, that air mission will HOLD at its next landing until the mission is resumed. The length of the HOLD may be specified. Upon expiration of the HOLD or invocation of the AIR_MISSION:RESUME command, the mission resumes its pre-launch or flight profile processing.

IFF: Alters the Modes 1, 3 and 4 of the (Identification Friend or Foe) IFF settings for the aircraft in a given air mission.

INVISIBLE: Makes an air mission invisible for the purpose of detection, attack by surface weapons, and air-to-air weapons.

LAND: Lands an air mission at its current location or at a specified location after the mission flies there. The user may specify the length of time the mission is to stay on the ground. Upon completion of the land time delay, the air mission will resume flying its mission profile from its current location.

LAUNCH: Immediately assigns aircraft to (if not already accomplished) and launches the specified mission. The assignment of aircraft, fuel and ordnance to the mission will be done only if they are available. There will, however, be no launch delays due to weather minimums or the airfield operational status.

MODIFY STRIP ALERT STATUS: Changes the launch delay time for a given air mission on strip alert status. Valid launch delay times are 2, 5, 15, and 30 minutes.

ORBIT: Orbits the air mission at its current location or a specified location after the mission flies there. The user has the option of specifying the length of time the air mission will orbit.

OVERRIDE FUEL: Immediately resets the specified air mission's fuel endurance back to its maximum, as determined by the type of aircraft on the mission.

QUICK TURN: Defines and schedules another air mission identical to the current mission using the same aircraft and ordnance load. The new air mission launches after the quick turn time for the type of aircraft involved, provided there is sufficient fuel and ordnance to reload.

RADAR: Selectively activates or deactivates an air mission's (AEW) radar. (Default on takeoff is OFF)

REFUEL: Refuels an air mission on the ground or in the air. If airborne, the air mission will fly to the location the user has specified and either begins to refuel if the tanker is available, or orbit at that location and wait for the tanker. If the air mission is on the ground, it refuels at its current location if fuel is available. If no fuel is available, the air mission does not refuel.

RELEASE TRACK: Immediately terminates the current vector of an air mission to a track.

RESUME: Causes the resumption of a mission that had been in a HOLD status at an intermediate hold point or at an orbit point.

RTB (RETURN TO BASE): Causes a specified air mission to commence an immediate return to its original base or a specified alternate base. An air mission in an RTB status responds to the following commands: COMMIT, DIVERT, VECTOR, ORBIT, and REFUEL.

SCRAMBLE: Causes the launch with a two-minute delay of any defined air mission that has not yet taken off. This command applies only to those air missions that have already received the necessary aircraft, fuel, and ordnance.

VECTOR: Causes a specified air mission to engage the specified non-same side air track. The command is valid when an air mission is airborne or on strip alert providing it has ordnance and sufficient fuel to complete the mission.

AIR TRACK

AUTO ID: Enables/disables the automatic identification feature of the system to identify air tracks detected by airborne, shipborne, or ground-based radars. When enabled, this capability automatically classifies tracks as to their hostile or friendly status.

DESIGNATE: Manually classifies tracks (ID in the NTDS sense) as to its friendly or hostile status.

AIRCRAFT

DEFINE: Defines aircraft and immediately assigns them to a squadron.

DELETE: Deletes one or more specified aircraft by using the aircraft side numbers.

MAINTAIN: Sets the operational status (UP or DOWN) of exercise aircraft.

MODIFY: Changes the squadron assignment and/or Mode 2 IFF setting of a specified aircraft.

AIRFIELD

DEFINE: Defines the airfield identification, location, operational status, ordnance unit, fuel unit, air squadron(s), and runway(s) at a specified airfield. Ownership default is MTWS owned.

DELETE: Deletes a specific defined airfield from the exercise.

LINK: If not entered during Airfield Define, assigns an ordnance unit, a fuel unit, air squadrons or runways to a specific airfield.

MODIFY: Modifies the operational status of a specified airfield now or at a later specified time.

UNLINK: Removes a defined ordnance unit, fuel unit, air squadron(s) or runway(s) from a specified airfield.

CHECKPOINT

DEFINE: Defines a reference point/location/named point as a named checkpoint.

DELETE: Deletes a named checkpoint.

FLIGHT PROFILE

DEFINE: Define a named profile using a series of point definitions to describe the flight profile points.

DELETE: Deletes a defined flight profile.

ORDNANCE LOAD

DEFINE: Defines a specific air ordnance load.

DELETE: Deletes defined ordnance load.

PATROL AREA

DEFINE: Allows the user to define a patrol area.

DELETE: Allows the user to delete a defined patrol area.

SONAR AREA

ACTIVATE: Allows the user to activate owned sonar.

DEACTIVATE: Allows the user to deactivate an active sonar.

STRIKE GROUP

ADD: Adds an air mission to the strike group.

DEFINE: Defines a strike group by grouping two or more air missions, which are essentially flying to the same target/destination. These air missions may come from different airfields and have different missions, such as Deep Air Support and Escort.

ORBIT: Orbits a defined strike group at its current location or at a specified location after the mission flies there.

OVERRIDE FUEL: Immediately resets the specified strike groups air mission fuel quantity back to its maximum, as determined by the type of aircraft on the mission.

REMOVE: Removes air missions from a strike group.

RESUME: Causes the resumption of a strike group mission that has been in Orbit status.
RTB (RETURN TO BASE): Causes a specified strike group to commence an immediate (return-to-base) RTB, regardless of its current activity. The user has the option of specifying an alternate location other than the airfield from which the Strike Group originated. The default is the airfield of origin of the flight.

TACAN (TACTICAL CONTROL AND NAVIGATIONAL SYSTEM)

DEFINE: Defines a TACAN station. The user must enter the TACAN ID. Then the user may identify the location of the TACAN station using geographic location (UTM or LAT/LONG), its bearing and distance from another defined TACAN station or NAME LOCATION.

DELETE: Deletes a defined TACAN station.

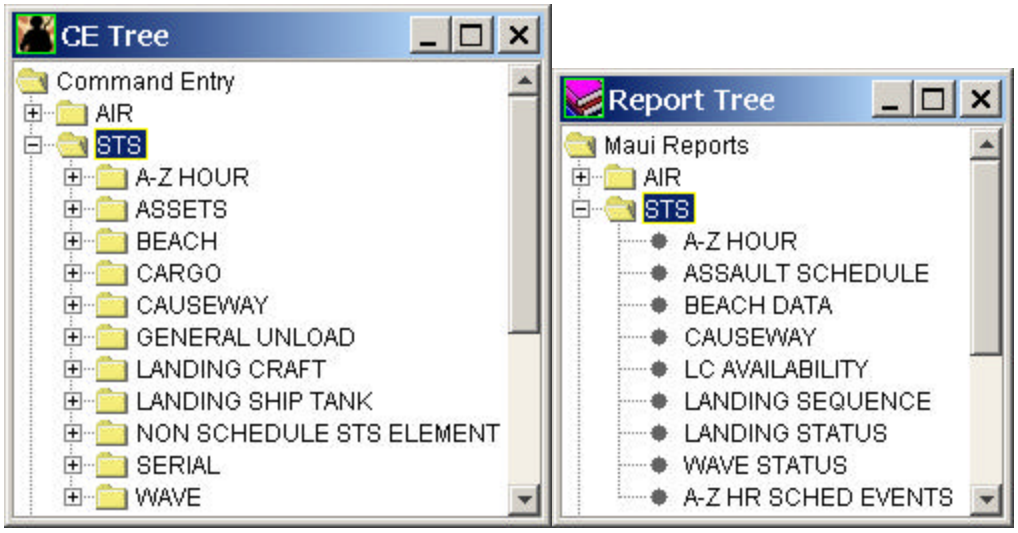
TARGET

DEFINE: Defines a target and assigns it an identification, location and side. In addition and at their discretion, the user may give the target a textual description, an elevation, a target classification and/or a target priority.

DELETE: Deletes defined targets.

Section II - STS (SHIP-TO-SHORE)

The STS functional area contains all the commands related to a typical amphibious operation, except the STS air mission commands, which are in the AIR section. The STS commands will replicate the landing, movement and unloading of units, equipment, and supplies from amphibious ships to the objective area. Corresponding STS reports are located on the Report Tree.



A-Z HOUR

DEFINE: Defines a reference time for ship-to-shore operations. (Same as A-Z HOUR in AIR)

ASSETS

ABANDON: Abandons specific type of assets, assets by damage and troops by casualty level. This command also applies to the assets of attached units.

TRANSFER: This command allows the user to transfer assets from one unit to another. Time and distance factors are ignored and the transfer happens instantly even if the units are not collocated. The command allows assets to be transferred by All, TOTE, ASSET, percent of original unit strength, and by all damaged equipment and casualties.

UPDATE: Issues, increments, or decrements the assets of any unit by a specific assets or a percent of unit's original initialized quantities. Updates to units happen instantly and the assets are created without regard to source. The RATIONALE field defaults to "INITIAL". This rationale is only appropriate for units that have not yet been initialized. After a unit has been initialized, some other rationale such as "RESUPPLY", "AJUDICATION" or "MAGIC" must be selected.

BEACH

CHANGE LANDING TIMES: Changes the scheduled landing time at a specified beach.

DEFINE: Defines beaches for surface ship-to-shore operations.

DELETE: Deletes a defined beach.

MODIFY: Modifies parameters of a defined beach.

CARGO

DEFINE: Allows the STS Operator to define a cargo. (See cargo define under CSS)

DELETE: Deletes a defined cargo.

CAUSEWAY

CONSTRUCT: Allows construction of a causeway instantly or over time.

DELETE: Deletes a constructed causeway.

GENERAL UNLOAD

INITIATE: Initiates general unloading for a designated beach.

LANDING CRAFT:

ALLOCATE: Manually overrides software logic that automatically allocates available landing craft to surface STS elements.

LANDING SHIP TANK

LAND: Directs an amphibious assault ship to move to a specified beach for unloading on the beach or at a beach causeway.

NON-SCHEDULED STS ELEMENTS

DEFINE: Defines a non-scheduled STS element, identifies the associated landing beach, kind of STS element to be landed (non-scheduled serial, or selective load), and selects the serial, unit, or cargo. Type and quantity of landing craft may also be selected or changed.

DELETE: Deletes a non-scheduled STS element.

DIVERT: Diverts a non-scheduled STS element by STS element or specified beach to another specified beach.

HOLD: Directs one or more non-scheduled STS elements or all non-scheduled STS elements destined for a specific beach to hold.

LAND: Directs defined non-scheduled STS elements, new non-scheduled serial, or new selective load STS elements to land at a specified beach or all beaches.

LOAD: Selects a defined or new non-scheduled serial to define and/or load a non-scheduled STS element, or selects a new selective load to load.

MODIFY: Modifies parameters of a non-scheduled STS element.

RESUME: Resumes a surface movement of non-scheduled STS elements put on hold.

SPEED: Sets the speed of non-schedules STS elements involved in the ship-to-shore movement.

SERIAL

ASSOCIATE: Associates a serial with an air mission for the ship-to-shore movement.
DEFINE: Defines a serial and initially assigns it to type and number of landing or air craft and assigns it to a beach (surface) or landing zone (air).

DELETE: Deletes a defined serial. A serial may be deleted only if it is not assigned to a wave, or non-scheduled serial for ship-to-shore movement.

MODIFY: Modifies the attributes of a defined serial. Serials are modifiable up to the time of the first scheduled activity for the STS element to which the serial has been assigned.

WAVE

DEFINE: Defines scheduled waves, on-call waves, floating dumps, and serials for an underway launch.

DELETE: Deletes a defined wave if wave has not commenced landing activities.

DIVERT: Divert waves by STS element or all designated to land at a specific beach from one beach to another specified beach.

HOLD: Places a wave on hold.

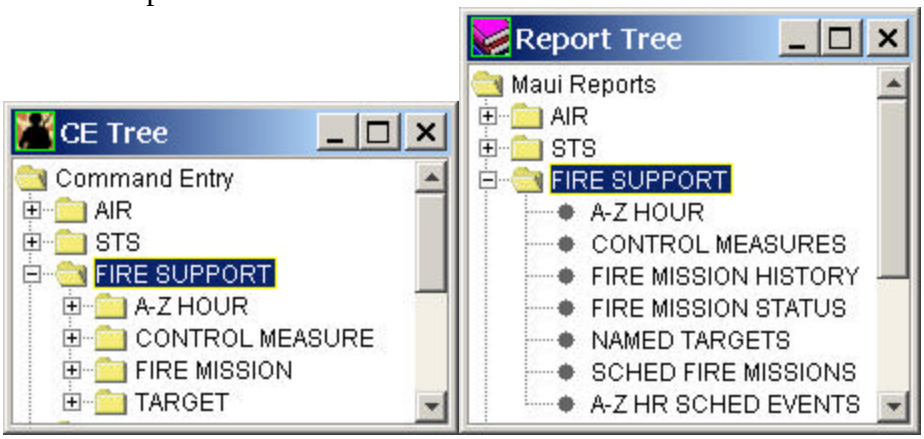
MODIFY: Modifies certain parameters of the wave.

RESUME: Resumes a surface movement of a wave(s) put on hold.

SPEED: Used to change the speed of waves involved in the ship-to-shore movement.

Section III – FIRE SUPPORT

The FIRE SUPPORT functional area contains all the support commands related to fire support including control measures and targets. Corresponding FIRE SUPPORT reports are located on the Report Tree.



A-Z HOUR

DEFINE: Defines a reference time for fire mission support operations. (Same as A-Z HOUR in AIR and STS)

CONTROL MEASURE

DEFINE: Allows the user to define Fire Support control measures in MTWS so that they are shared among all MDS's.

DELETE: Allows the user to delete a defined control measure.

FIRE MISSION

CHECK FIRE: Allows the user to check a fire mission.

CNX: Allows the user to cancel a Scheduled or Active Fire Mission. On-Call missions must be deleted.

DEFINE: Provides the user the capability to define a scheduled fire mission, on-call fire mission, or immediate fire mission.

DEFINE QUICK MISSION: Provides the capability to define a quick immediate fire mission. Several parameters found in the Fire Mission command are defaulted to speed up the command entry process.

DELETE: Allows the user to delete an On-Call fire mission. If firing has commenced, the mission cannot be deleted but it can be cancelled (CNX).

FIRE ON-CALL: Allows the user to identify TOT or immediately fire a defined On-Call fire mission.

REPEAT FIRE: Allows the user to repeat a fire mission if the user request is made while the mission is firing or within two minutes of mission termination.

RESUME FIRE: Allows the user to resume a checked fire mission. If the mission is resumed, the mission continues firing until its original fire mission is complete.

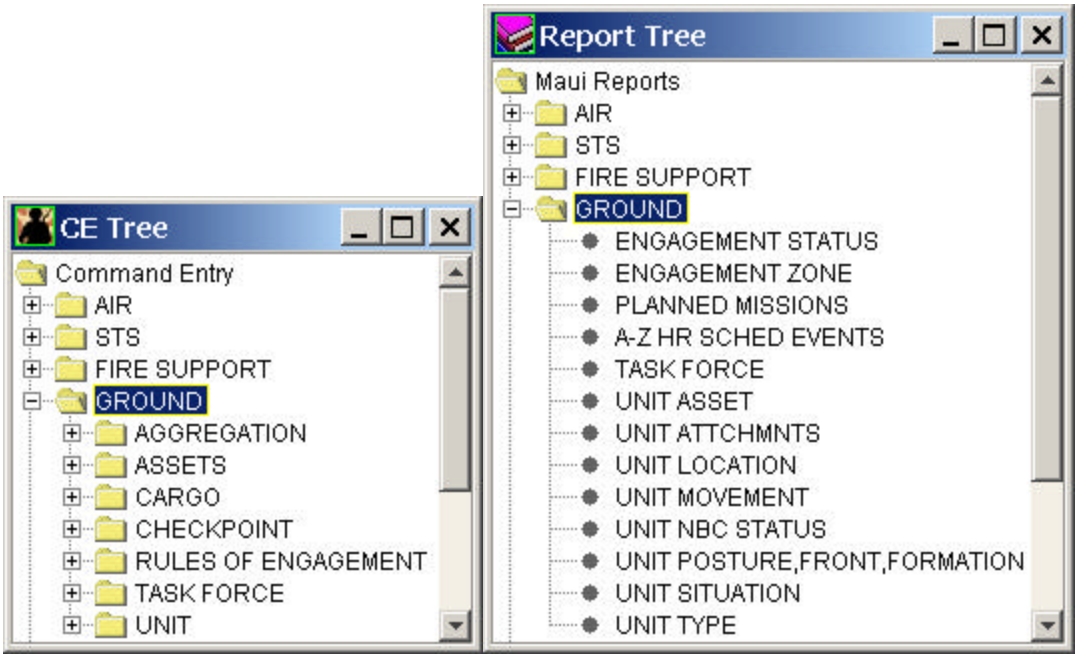
SCHEDULE: Allows the user to reschedule existing scheduled fire missions if the request is made prior to mission commencing preparation.

TARGET

DEFINE: Allows the user to define a target and assign it an identification, location and side. It also allows for textual description, elevation, target classification and priority.
DELETE: Allows the user to delete a defined target that is not currently being fired upon.

Section IV – GROUND

The GROUND functional area contains all the commands related to ground movement and ground combat operations of units. Corresponding GROUND reports are located on the Report Tree.



AGGREGATION

DEFINE: This command is a capabilities demonstration only and should not be used during an exercise. See Aggregate/Deaggregate under Display Objects for information on how to display desired units.

DELETE: Not available. (Dithered)

MODIFY: Not available. (Dithered)

ASSETS

ABANDON: Allows the user to abandon specific assets, and the option to selectively abandon damaged or destroyed equipment, by damage category, for specific types of equipment or across all casualties and equipment possessed by the unit.

TRANSFER: This command allows the user to transfer assets from one unit to another. Time and distance factors are ignored and the transfer happens instantly even if the units are not collocated. The command allows assets to be transferred by ALL, TOTE, ASSET, percent of original unit strength, and by all damaged equipment and casualties.

UPDATE: Allows the user to increment or decrement the assets of any specified unit or cargo. The command allows assets to be updated by asset, asset by percent of original unit strength, troops, fuel, rations and water. Updates to units happen instantly and the assets are created without regard to source. The RATIONALE field defaults to "INITIAL". This rationale is only appropriate for units that have not yet been initialized. After a unit has been initialized, some other rationale such as "RESUPPLY", "AJUDICATION" or "MAGIC" must be selected.

CARGO

DEFINE: Allows the user to define cargo for delivery to a requesting unit. The cargo consists of a collection of assets (troops, equipment and supplies). The supplying unit must posses the assets that are transferred into the cargo from the supplying unit. (Same as Cargo in CSS)

DELETE: Allows the user to delete a defined cargo if it is not associated with a transporting unit.

CHECKPOINT

DEFINE: Allows the user to define a point on the ground as a named checkpoint. Checkpoint names can be entered at route points for ground and air movement.

DELETE: Allows the user to delete a named checkpoint.

RULES OF ENGAGEMENT

DEFINE: Allows the user to select a unit or units by individual unit, Side, Chain of Command (COC), or All that will automatically engage non-same side units. MTWS default is set > ALL_UNITS > FIRE.

TASK FORCE

ASSIGN: Allows the user to assign units to a task force.

CASLIM (CASUALTY LIMIT): Allows the user to adjust the effective casualty limit for all units assigned to a task force.

DEFINE: Allows the user to assign ground units to a task force. Assigning units with attachments to a task force is not recommended.

DELETE: Allows the user to remove specific units from a task force or to remove all units from a task force (i.e. to disband the task force organization).

FACE: Allows the user to assign a specific directional heading ("face") of 0-360 degrees to all units assigned to a task force.

FATIGUE: Allows the user to set the fatigue level of all units assigned to a task force to a specified fatigue level immediately.

FRONT: Allows the user to assign a front to all units assigned to a task force.

FORMATION: Allows the user to assign a specific formation to all units assigned to a task force.

HALT: Allows the user to temporarily "halt" movement of all units assigned to a task force without requiring the user to re-enter the movement order when he wants the task force to begin movement again (i.e. the prior movement order is retained).

MASK: Allows the user to have all units assigned to a task force don or remove their protective masks.

MISSION: Allows the user to assign a mission to all units assigned to a task force.

MOPP (MISSION ORIENTED PROTECTIVE POSTURE): Allows the user to set or change the MOPP level of all units assigned to a task force, provided they have MOPP equipment.

POSTURE: Allows the user to assign a posture to all units assigned to a task force.

RESUME: Allows the user to resume a halted movement.

REVERSE: Allows the user to reverse the movement of units assigned to a task force.

SPEED: Allows the user to set a specified speed for all units assigned to a task force.

STOP: Allows the user to stop the movement of all units assigned to a task force.

UNIT

ALLOCATE: Allows the user to assign from one to twenty units to a controller.

ASSOCIATE: Allows the user the capability to associate a ground unit with a transporting entity (unit or air mission).

ATTACH: Allows the user to attach one or more subordinate units to a parent unit.

CASLIM (CASUALTY LIMIT): Allows the user to adjust a unit's effective casualty limit.

DEFINE: Provides the user with the ability to create an exercise unit.

DELETE: Allows the user to delete a defined unit.

DETACH: Provides the user with the capability to detach one or more specified units from their current parent unit or detach all attachments.

DISASSOCIATE: Allows the user to release the transporting entity (unit or air mission) from its unit association.

DISMOUNT: Allows the user to order a ground unit to dismount its troops from its vehicular assets. All troops except for minimum vehicle crews will be dismounted.

ENGAGEMENT ZONE DEFINE: Provides the user with the capability to create an engagement zone for a specified ground unit.

ENGAGEMENT ZONE DELETE: Allows the user to delete a defined engagement zone.

FACE: Allows the user to assign a specified directional heading or face of 0-360 degrees to a specified unit.

FATIGUE: Allows the user to set the fatigue level of a combat unit to a specified fatigue level immediately.

FORMATION: Allows the user to assign a specific formation to a unit.

FRONT: Allows the user to assign a specific frontal dimension to a unit.

HALT: Allows the user to temporarily halt movement of a unit without requiring the user to re-enter the movement order when he wants the units to begin movement again (i.e.. the prior movement order is retained.)

INITIALIZE: Allows the user to initialize a unit that was defined after the exercise has started.

INVISIBLE: Provides the user the capability to selectively render a specified ground unit invisible for the purposes of detection, attack by point target weapons and direct fire engagements.

LOCATE: Allows the user to instantly relocate a ground unit or ship.

MASK: Allows the user to have a specific unit don or remove protective masks. This command is deferred and should not be used.

MISSION: Allows the user to assign a mission to a unit or group of units (parent with attachments).

MODIFY: Allows the user to modify a unit's side, HHQ, real or simulated status and LIDS equipped status after the unit has been defined.

MOPP (MISSION ORIENTED PROTECTIVE POSTURE): Allows the user to set or change a unit's MOPP level, provided they have MOPP equipment.

MOUNT: Allows the user to order a ground unit to mount its troops in its vehicular assets.

POSTURE: Allows the user to order a specified ground unit to assume a particular posture.

RESUME: Allows the user to resume a surface movement that has been halted.

REVERSE: Allows the user to reverse the movement of a unit.

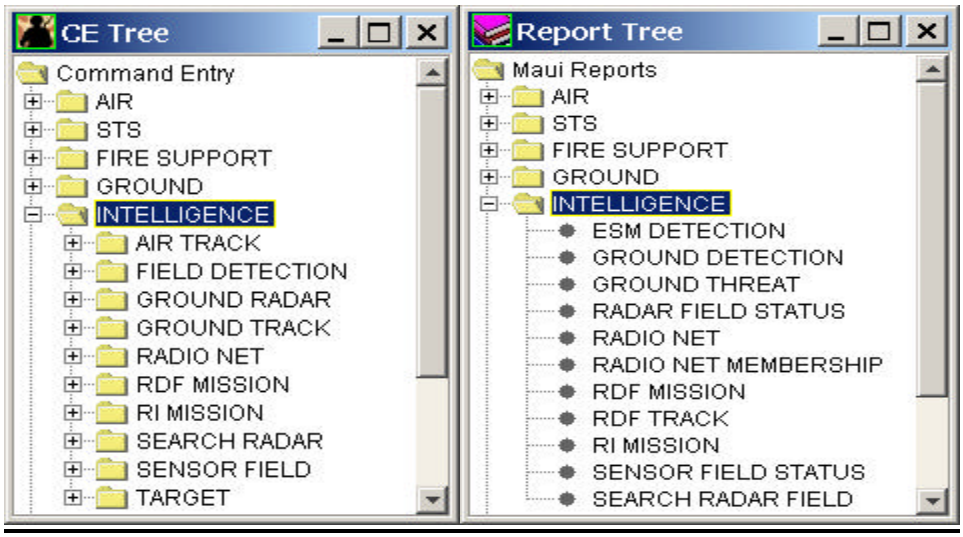
SKIRT: Allows the user to order a ground unit to skirt an obstacle. This command is deferred and should not be used.

SPECIAL WEAPONS: Allows the user to simulate the "Lock/Unlock" of special weapons. This command is deferred and should not be used.
SPEED: Allows the user to set a specified speed for a moving unit.

STOP: Allows the user to stop the movement of a unit.

Section V – INTELLIGENCE

The INTELLIGENCE functional area contains commands related to intelligence collection activities. Corresponding INTELLIGENCE reports are located on the Report Tree.



AIR TRACK

AUTO ID: Allows the user to enable/disable the automatic identification feature of the system to identify air tracks detected by airborne, shipborne, or ground-based radars. When enabled, this capability automatically classifies tracks as to their hostile or friendly status.

DESIGNATE: Allows the user to manually classify (ID in the NTDS sense) as to friendly or hostile status.

FIELD DETECTION

DEFINE: Allows umpires to enter actual detections occurring in the field. These detections are recorded in the database.

MODIFY: Provides the capability to change information recorded for field detection in terms of its various attributes.

GROUND RADAR

ACTIVATE: Allows the user to activate specified ground radar.

DEACTIVATE: Allows the user to deactivate specified ground radar.

DEFINE: Allows the user to define a ground radar coverage area.

DELETE: Allows the user to delete a defined ground radar coverage area.

ORIENT: Allows the user to orient the radar coverage area by assigning a center azimuth.

GROUND TRACK

DEFINE: Allows the user to define ground track detection and identify the detection method.

DELETE: Allows the user to delete ground tracks.

DESIGNATE: Allows the user to designate (i.e. identify) the track as to status (i.e. HOSTILE).

IDENTIFY: Allows the user to identify a ground track and assign identification to it.

RADIO NET

DEFINE: Allows the user to define radio nets, assign frequencies, determine encryption status and assign units to participate on the particular radio nets. This command is deferred and should not be used.

DELETE: Allows the user to delete a defined radio net. This command is deferred and should not be used.

MODIFY: Allows the user to modify certain parameters of a defined radio net. This command is deferred and should not be used.

RDF (RADIO DIRECTION FINDING) MISSION

DEFINE: Allows the user to determine the start and stop times of an RDF mission and define the target radio frequencies. This command is deferred and should not be used.

DELETE: Allows the user to delete an RDF mission from the exercise. This command is deferred and should not be used.

RI (RADIO INTERCEPT) MISSION

DEFINE: Allows the user to define the target frequency and as an option to select start and stop times for radio intercept missions. This command is deferred and should not be used.

DELETE: Allows the user to delete a radio intercept mission from the exercise. This command is deferred and should not be used.

SEARCH RADAR

ACTIVATE: Allows the user to activate search radar.

DEACTIVATE: Allows the user to deactivate search radar.

DEFINE: Allows the user to define a search radar coverage area.

DELETE: Allows the user to delete a defined search radar coverage area.

SENSOR FIELD

ACTIVATE: Allows the user to activate a specified sensor field.

DEACTIVATE: Allows the user to deactivate a specified sensor field.

DEFINE: Allows the user to define a sensor field.

DELETE: Allows the user to delete a defined sensor field.

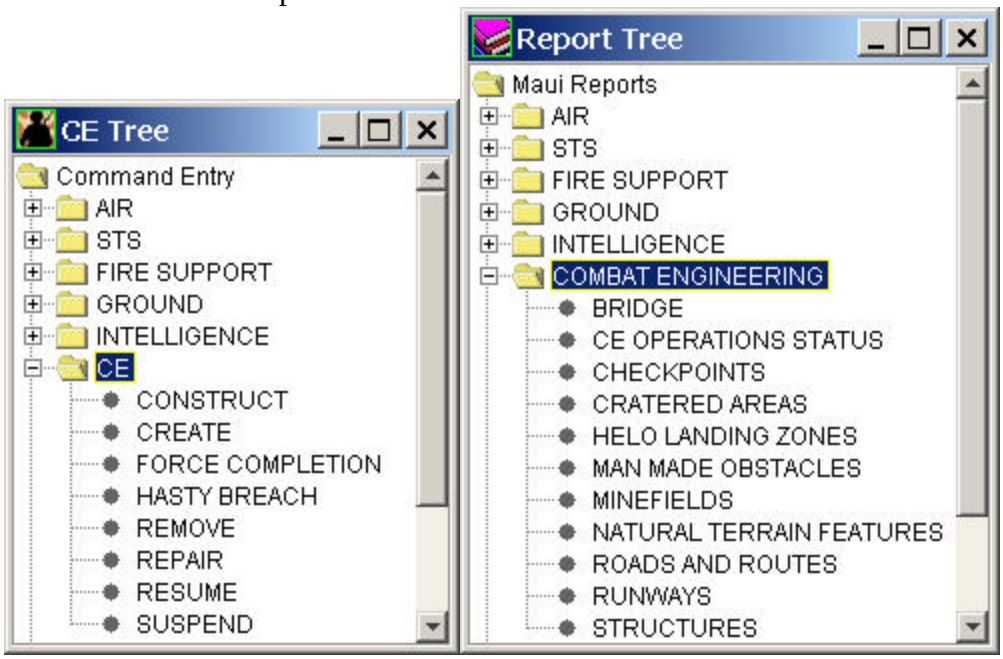
TARGET

DEFINE: Allows the user to define a target and assign it an identification, location and side. In addition, at his discretion, the user may give the target a textual description, an elevation, a target classification and/or a target priority. (Same as TARGET DEFINE in FIRE SUPPORT.)

DELETE: Allows the user to delete a defined target. (Same as TARGET DELETE in FIRE SUPPORT.)

Section VI – COMBAT ENGINEERING

The COMBAT ENGINEERING functional area contains all of the commands related to combat engineering operations. It also contains all the commands related to the creation of natural terrain features and structures. Corresponding COMBAT ENGINEERING reports are located on the Report Tree.



CE

CONSTRUCT: Allows the construction of improved surfaces and obstacles.

CREATE: Allows the instant creation of natural terrain features and structures.

FORCE COMPLETION: Forces the immediate completion of an object being constructed by a unit in the simulation.

HASTY BREACH: Allows the hasty breach of a minefield.

REMOVE: Allows for the removal of a constructed CE object.

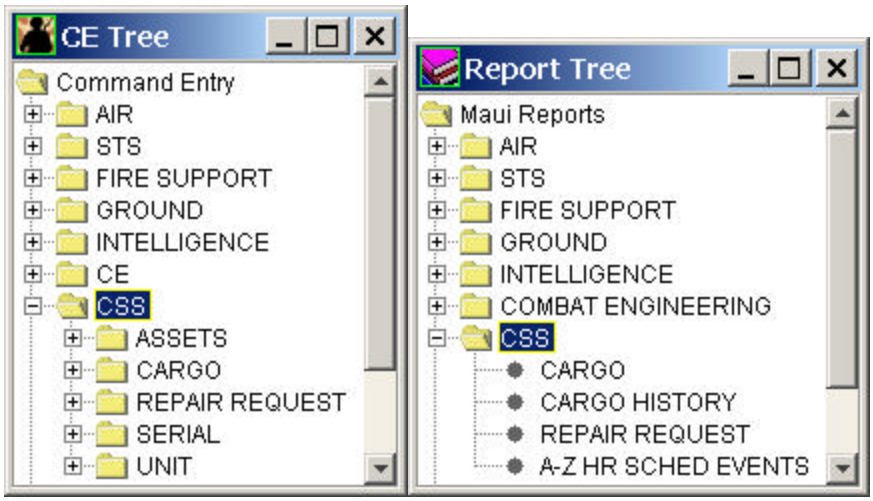
REPAIR: Allows the repair of bridges, roads, routes and cratered runways.

RESUME: Allows for the resumption of a suspended CE operation.

SUSPEND: Allows for the suspension of a CE operation.

Section VII – CSS (COMBAT SERVICE SUPPORT)

The COMBAT SERVICES SUPPORT functional area contains all the commands related to CSS activities for supply, transportation, maintenance, medical and material handling. CSS also maintains the current levels of food and water for all units. Corresponding CSS reports are located in the Report Tree.



ASSETS

ABANDON: Allows the user to abandon specific unit assets, and the option to selectively abandon damaged or destroyed equipment, by damage category, for specific types of equipment or across all equipment and casualties possessed by the unit. This command also applies to the assets of attached units.

TRANSFER: This command allows the user to transfers assets from one unit or cargo to another unit or cargo. Time and distance factors are ignored and the transfer happens instantly even if the units are not collocated. The command allows assets to be transferred by All, TOTE, ASSET, percent of original unit strength, and by all damaged equipment and troop casualties.

UPDATE: Issues, increments or decrements the assets of a specified unit or cargo by a specific assets or a percent of the unit's original initialized quantities. Updates to units happen instantly and the assets are created without regard to source. The RATIONALE field defaults to "INITIAL". This rationale is only appropriate for units that have not yet been initialized. After a unit has been initialized, some other rationale such as "RESUPPLY", "AJUDICATION" or "MAGIC" must be selected.

CARGO

ASSOCIATE: Associates a cargo with a transporting entity (unit or air mission). The transporting entity is then responsible for pickup and delivery of the cargo. A transporting entity may be associated with multiple cargos.

DEFINE: Allows the user to define a cargo for delivery to a requesting unit. The cargo consists of a collection of assets (troops, equipment and supplies). The supplying unit must posses the assets that are transferred into the cargo from the supplying unit; assets are taken from the source unit (i.e. supplying unit) assets.

DELETE: Allows the user to delete a defined cargo if it is not associated with a transporting unit.

LOAD: Instantly loads a cargo on a specified unit or air mission without regard to time and distance factors.

RELEASE: Releases the transporting entity from its cargo association. The associated unit may be released if the transporting entity hasn't yet arrived and initiated loading of the cargo.

UNLOAD: Instantly unloads cargo from a unit or air mission without regard to time and distance factors. Cargo will be placed directly under transporting unit or at location entered as unload location.

REPAIR REQUEST

ASSOCIATE: Associates a repair request with a particular CSS maintenance team.

DEFINE: Defines a specific item of equipment for repair and allows for, assignment of a CSS team to repair the item of equipment.

DELETE: Deletes a defined repair request.

RELEASE: Releases a CSS team from a repair request.

SERIAL

ASSOCIATE: Associates a serial with an air mission for STS operations.

RELEASE: Disassociates the serial and its transporting air mission.

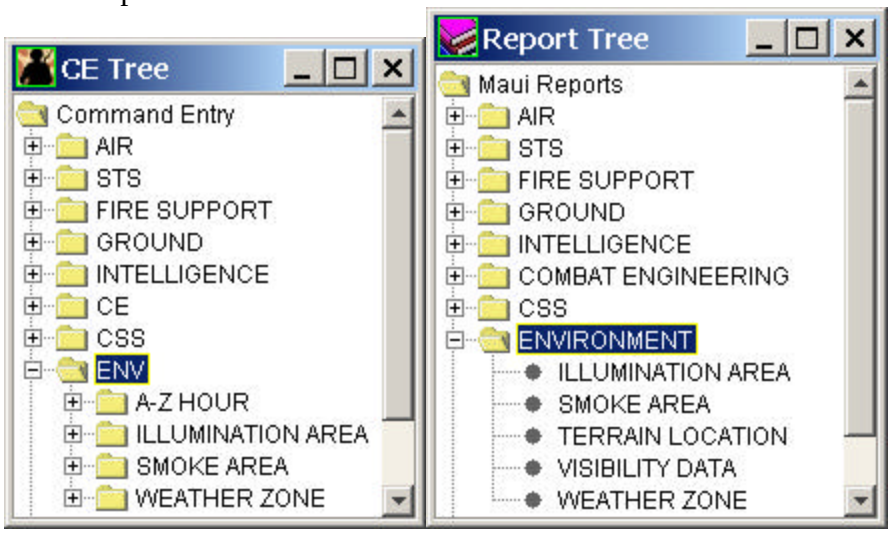
UNIT

LOAD: Instantly loads a unit for transport by a ground unit or air mission without regard to time and distance factors. The loaded unit's icon will disappear from the map viewing area.

UNLOAD: Instantly unloads a unit from a transporting ground unit or air mission without regard to time factors. The unloaded unit is placed at the same location as the transport unit. The unloaded unit's icon reappears on the map viewing area.

Section VIII – ENV (ENVIRONMENT)

The ENVIRONMENT functional area contains the commands to DEFINE an A-Z HOUR; DEFINE and DELETE ILLUMINATION and SMOKE AREAS and to DEFINE, DELETE and MODIFY WEATHER ZONES. Corresponding ENVIRONMENT reports are located in the Report Tree.



A-Z HOUR

DEFINE: Defines a reference time for simulation operations. (Same as A-Z HOUR in AIR)

ILLUMINATION AREA

DEFINE: Defines an area to be illuminated. Unit needs to be near the area center at activation time, if not the area will NOT be created and the unit's controller will not be notified.

DELETE: Deletes a defined Illumination Area.

SMOKE AREA

DEFINE: Defines an area to be smoked and identified radius and time of smoke activity.

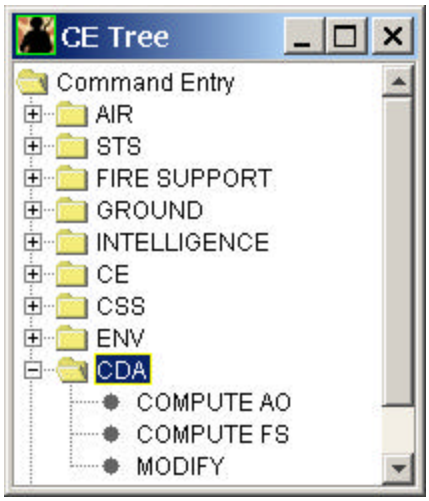
DELETE: Deletes a defined Smoke Area.

WEATHER ZONE

DEFINE: Defines an area with specified weather conditions and activation time.
DELETE: Deletes a defined Weather Zone.
MODIFY: Allows the modification of a defined Weather Zone.

Section IX – CDA (CASUALTY AND DAMAGE ASSESMENT)

The CDA functional area contains the commands to compute the results of air strikes and fire missions. The user has the option of reviewing the results without applying CDA to the targeted unit or reviewing and applying CDA.



CDA

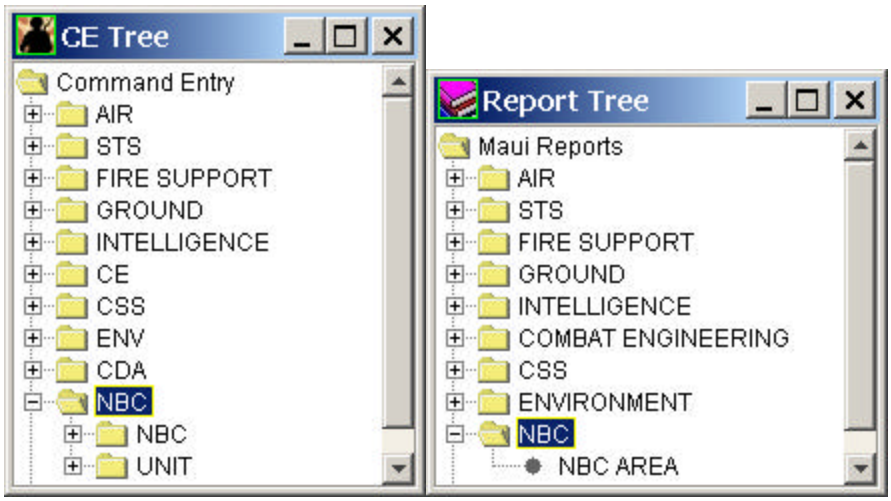
COMPUTE AO (AIR STRIKE): Allows the user to cause the calculation and reporting of the effects of an imaginary employment of a specified number of air launched weapons against a specified location or named unit or target.

COMPUTE FS (INDIRECT FIRE): Allows the user to cause the calculation and reporting of the effects of indirect fire missions against a specified location or named unit or target.

MODIFY: Allows the user to change the recorded damage assessment of a target. Change in Distribution of Damages can be made on CE products, STS element and for air mission results. This command is deferred and should not be used.

Section X – NBC (NUCLEAR, BIOLOGICAL, CHEMICAL)

The NBC functional area contains the commands for NBC and UNIT protective measures. A corresponding NBC report is located in the Report Tree. This command is deferred and should not be used.



NBC

CREATE AREA: Creates NBC contaminated areas of differing sizes and contaminants. This command is deferred and should not be used.

DELETE AREA: Deletes defined contaminated areas. This command is deferred and should not be used.

UNIT

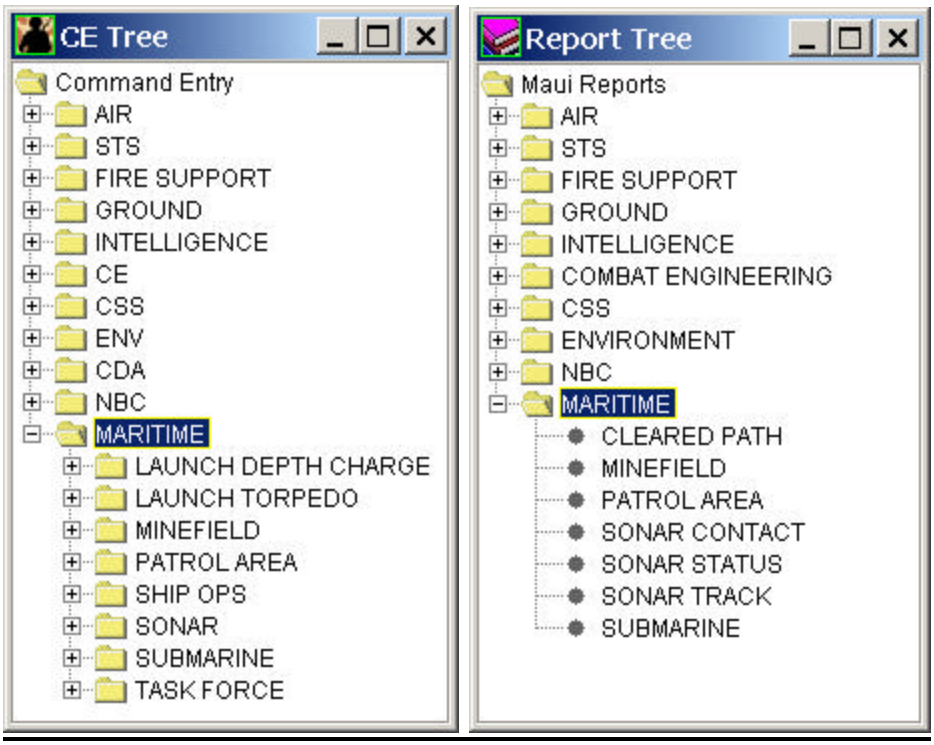
MASK: Directs a unit to don or remove their protective masks.

MOPP (MISSION ORIENTED PROTECTIVE POSTURE): Change a unit's MOPP level. (Command is available under Ground Unit and NBC.)

SPECIAL WEAPONS: Simulate the Locking/Unlocking of special weapons owned by a specific unit. NBC is a deferred capability. This command is deferred and should not be used.

Section XI – MARITIME

The MARITIME functional area contains the commands to maneuver individual ships or ships assigned to a task force. Corresponding MARITIME reports are located in the Report Tree.



MARITIME

LAUNCH DEPTH CHARGE:

DEFINE: Allows the user to launch depth charges at a specified depth.

LAUNCH TORPEDO:

DEFINE: Allows the user to launch torpedoes.

MINEFIELD:

CONSTRUCT: Allows the construction of a Maritime (Anti-Ship) minefield.

CLEAR: Allows the clearing of a Maritime minefield. This function marks path cleared (CP) through the minefield.

DELETE: Allows for the removal of a constructed Maritime minefield.

PATROL AREA:

DEFINE: Allows the user to define a patrol area.

DELETE: Allows the user to delete a defined patrol area.

SHIP OPS:

HOLD: Temporarily holds the movement of a ship or task force of ships, without requiring the user to re-enter the movement order when he wants that ship or task force to begin its movement again.

LOCATE: Locates a specific ship to a specified location.

MOVE: Issues a command to move a ship by ship or by task force at a given speed to a specific location. The user, at his discretion, may specify a start time or delay time movement begins.

RESUME: Restarts, resumes a previous ship movement command when a ship or task force of ships has been given a hold command.

REVERSE: Reverses the movement of a ship or task force.

SPEED: Allows the user to change the speed of a specific ship or task force without reissuing it a new movement command.

STOP: Stops movement of a ship or task force of ships.

SONAR:

ACTIVATE: Allows the user to activate owned sonar.

DEACTIVATE: Allows the user to deactivate an active sonar.

PING: Allows the user to select an active sonar to ping.

SUBMARINE:

DEFINE: Provides the user with the ability to define a submarine.

DELETE: Allows the user to delete a defined submarine.

DEPTH: Allows the user to modify the depth of a specified submarine.

HOLD: Allows the user to temporarily halt movement of a submarine without requiring the user to re-enter the movement order when he wants the submarine to begin movement again (i.e. the prior movement order is retained.)

INVISIBLE: Provides the user the capability to selectively render a specified submarine invisible.

LOCATE: Allows the user to instantly relocate a submarine.

MISSION: Allows the user to assign a move command, mission, to a submarine. Only the MOVE missions can be assigned using this command.

MODIFY: Allows the user to modify a submarine's side, HHQ, Controller or Real or Simulated status.

RESUME: Allows the user to resume a submarine move mission that has been given a hold command.

SPEED: Allows the user to set a specified speed, in Knots, for a submarine.

STOP: Allows the user to stop the movement of a submarine.

UPDATE: Allows the user to update a submarine's assets. The RATIONALE field defaults to "INITIAL". This rationale is only appropriate for submarines that have not yet been initialized. After a submarine has been initialized, some other rationale such as "RESUPPLY", "AJUDICATION" or "MAGIC" must be selected.

TASK FORCE:

ASSIGN: Allows the user to assign additional ships to a Task Force.

DEFINE: Allows the user to define a new Task Force identifying its commander and all ships assigned to that Task Force. Do NOT assign attached units or units with attachments to a Task Force.

DELETE: Allows the user to remove specific units from a task force or to remove all units from a Task Force (i.e. to disband the task force organization).